

IRRIGATION SYSTEM GENERAL NOTES:

1. ALL IRRIGATION SYSTEM COMPONENTS SHALL BE COMMERCIAL GRADE BRAND PRODUCTS AS DEEMED ACCEPTABLE BY LEHI CITY PARKS DEPT. ALL PRODUCTS MUST BE APPROVED PRIOR TO INSTALLATION. THIS IS REQUIRED FOR STANDARDIZATION & INVENTORY CONTROL.
2. IRRIGATION SYSTEMS SHALL BE CONSTRUCTED TO THE SIZES, GRADES & LOCATIONS STATED HEREIN. CONTRACTOR SHALL COORDINATE WITH PARKS DEPT. FOR ALL CLOCKS & FILTER DESIGNS. LOCATIONS OF IRRIGATION HEADS SHALL BE SUBJECT TO THE PARKS' DEPT. APPROVAL.
3. THE CONSTRUCTION OF SPRINKLER SYSTEMS SHALL INCLUDE THE FURNISHING, INSTALLING & PRESSURE TESTING OF MAINS & THE FURNISHING & INSTALLING OF SPRINKLER HEADS, GATE VALVES, CONTROL VALVES, AUTOMATIC VALVES, AUTOMATIC CONTROLLERS & THE ELECTRICAL CONNECTION. THE REMOVAL AND/OR RESTORATION OF EXISTING IMPROVEMENTS, EXCAVATION & BACKFILL & ALL OTHER WORK SHALL BE IN ACCORDANCE WITH LEHI CITY STANDARDS & SPECIFICATIONS.
4. THE CONTRACTOR SHALL PROVIDE TOPSOIL CERTIFICATION FOR PROJECTS REQUIRING TOPSOIL. CERTIFICATIONS SHALL MEET THE PARKS DEPT. REQUIREMENTS.
5. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, THE PUBLIC & SHALL BE RESPONSIBLE FOR ANY DAMAGE, INJURY OR LOSS DUE TO NEGLECT.
6. THE CONTRACTOR SHALL, AT ALL TIMES, MAINTAIN SAFE PEDESTRIAN WAYS AROUND ALL CONSTRUCTION AREAS. THIS MAY REQUIRE PROPER & ADEQUATE SIGNS, FENCES, BARRICADES OR OTHER APPROVED DEVICES AS REQUIRED BY THE PUBLIC WORKS OR PARKS DEPT.
7. THE CONTRACTOR SHALL CALL PARKS DEPT. REPRESENTATIVE FOR INSPECTION PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOT ALLOW ANY OF THE WORK TO BE COVERED UNTIL IT HAS BEEN INSPECTED, TESTED & APPROVED BY THE PARKS DEPT. SHOULD ANY OF THE WORK BE ENCLOSED OR COVERED BEFORE INSPECTION & TESTING, THE CONTRACTOR SHALL UNCOVER THE WORK AT HIS/HER OWN EXPENSE & AFTER IT HAS BEEN INSPECTED, TESTED & APPROVED SHALL MAKE ALL REPAIRS WITH LIKE MATERIALS TO BRING THE WORK TO ACCEPTABLE STANDARDS AS NECESSARY.

IRRIGATION SYSTEM GENERAL CONDITIONS:

1. ORDINANCES & REGULATIONS: ALL LOCAL, MUNICIPAL & STATE LAWS, RULES, & REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE TO BE INCORPORATED INTO & MADE A PART OF ALL PLANS & SPECIFICATIONS & THEIR PROVISIONS SHALL BE CARRIED OUT BY THE LANDSCAPE ARCHITECT/ENGINEER & CONTRACTORS. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUCTED TO CONFLICT WITH ANY OF THE ORDINANCES & REGULATIONS OF THE CITY OF LEHI. HOWEVER, THESE SPECIFICATIONS TAKE PRECEDENCE OVER THE REQUIREMENT OF SAID RULES & REGULATIONS WHEN THEY DESCRIBE MATERIALS, WORKMANSHIP OR CONSTRUCTION OF A HIGHER STANDARD OR LARGER SIZE.
2. BONDING & INSPECTION: THE SPRINKLER SYSTEM & LANDSCAPE PLANTING WILL BE BONDED AS PART OF THE ENTIRE DEVELOPMENT PROJECT. BOND RELEASES WILL BE HANDLED THROUGH THE LEHI CITY PARKS & PLANNING DEPARTMENTS.
3. MATERIALS: WHENEVER ANY MATERIAL IS SPECIFIED BY NAME AND/OR NUMBER, SUCH SPECIFICATIONS SHALL BE DEEMED TO BE USED FOR THE PURPOSE OF FACILITATING A DESCRIPTION OF THE MATERIALS & ESTABLISHING QUALITY. NO SUBSTITUTION WILL BE PERMITTED UNLESS APPROVED BY THE PARKS DEPARTMENT IN WRITING.

RECORD DRAWINGS:

1. THE LANDSCAPE ARCHITECT WILL FURNISH THE PARKS DEPARTMENT WITH 4 PRELIMINARY SETS OF BLUELINE PRINTS FOR REVIEW SHOWING ALL SPRINKLER WORK REQUIRED. AFTER INITIAL REVIEW BY THE CITY, THE LANDSCAPE ARCHITECT/ENGINEER SHALL MAKE ALL NOTED CORRECTIONS AS DISCUSSED WITH STAFF. THE LANDSCAPE ARCHITECT/ENGINEER SHALL SUBMIT 4 FINAL SETS OF BLUELINE PRINTS.
2. UPON COMPLETION OF INSTALLATION THE CONTRACTOR/DEVELOPER WILL SUBMIT TO THE PARKS DEPARTMENT AN AS-BUILT SET OF PLANS. THE CITY PUBLIC WORKS DEPARTMENT & PARKS DEPARTMENT SHALL RECEIVE A CORRECTED SET OF AS-BUILT PLANS PRIOR TO ACCEPTING THE PROJECT.

01

IRRIGATION STANDARDS

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



LEHI CITY LANDSCAPE / IRRIGATION STANDARD DETAILS REQUIRED ON ALL CITY PROJECTS

PARKS DEPARTMENT
IRRIGATION STANDARDS
SCALE : NO SCALE
DATE: 11/9/2016
REVISION:
REVISION DATE:

INSPECTIONS & PROCEDURES:

1. THE IRRIGATION CONTRACTOR SHALL SET UP AN INSPECTION SCHEDULE WITH THE PUBLIC WORKS & PARKS DEPARTMENT. PRIOR TO EACH INSPECTION DATE, THE CONTRACTOR SHALL GIVE A MINIMUM OF ONE BUSINESS DAY NOTICE TO THE CITY PARKS DEPARTMENT.
2. IN THE EVENT THE CONTRACTOR REQUESTS INSPECTION OF WORK & SAID WORK IS SUBSTANTIALLY INCOMPLETE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-INSPECTION FEES.
3. THE DEVELOPER, AFTER INSTALLING THE IRRIGATION SYSTEM, SHALL REQUEST FROM THE CITY, THE FINAL INSPECTION & APPROVAL.
4. FROM THE DATE THE DEVELOPMENT PROJECT BEING SUBSTANTIALLY COMPLETE IS TERMED "SATISFACTORY" BY THE CITY INSPECTOR, THE DEVELOPER SHALL MAINTAIN, REPAIR AND REPLACE THE IRRIGATION SYSTEM FOR A PERIOD OF ONE YEAR.
5. AT THE END OF ONE YEAR THE CITY PARKS DEPARTMENT WILL, UPON SATISFACTORY INSPECTION, RELEASE THE CONTRACTOR & DEVELOPER FROM THE ONE YEAR GUARANTEE OF THE IRRIGATION SYSTEM & ANY OTHER LANDSCAPE ITEMS ON THE PROJECT.
6. THE DEVELOPERS SHALL OBTAIN WRITTEN APPROVAL, AS SUBSTANTIATED WITH A BOND RELEASE FOR THE COMPLETION OF ALL ITEMS, FROM THE PARKS DEPARTMENT THAT THE CITY HAS OFFICIALLY ASSUMED MAINTENANCE & THAT ALL WORK HAS BEEN PERFORMED SATISFACTORILY.

FLUSHING & TESTING:

1. AFTER ALL NEW SPRINKLER PIPING & RISERS ARE IN PLACE & CONNECTED & ALL NECESSARY WORK HAS BEEN COMPLETED PRIOR TO THE INSTALLATION OF SPRINKLER HEADS, CONTROL VALVES SHALL BE OPENED & A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
2. SPRINKLER MAINLINES SHALL BE TESTED AT 150 PSI FOR A PERIOD OF NOT LESS THAN ONE HOUR & SHALL SHOW NO LEAKAGE OR LOSS OF PRESSURE. ALL FITTINGS SHALL REMAIN EXPOSED DURING TESTING HOWEVER SOME PIPING MAY BE BURIED IN ORDER TO KEEP THE PIPE IN THE GROUND.

PLASTIC PIPE FITTINGS & CONNECTIONS:

1. ALL PLASTIC PIPE FITTINGS SHALL BE SUITABLE FOR EITHER SOLVENT WELD OR THREADED CONNECTIONS. FITTINGS SHALL BE FACTORY ASSEMBLED OR APPROPRIATE ALTERNATE. ALL MAINLINE FITTINGS SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
2. WHEN CONNECTION IS PLASTIC TO METAL, SCHEDULE 80 FEMALE ADAPTERS SHALL BE USED. THE FEMALE ADAPTER SHALL BE HAND TIGHTENED PLUS ONE TURN WITH A STRAP WRENCH. ALL THREADED JOINTS ARE TO BE WRAPPED WITH TEFLON TAPE.
3. ALL PVC SLIP JOINTS SHALL BE PRIMED PRIOR TO BEING GLUED. BURRS AT CUT ENDS SHALL BE REMOVED PRIOR TO INSTALLATION TO NECESSITATE A SMOOTH UNOBSTRUCTED WATER FLOW.

WIRING:

1. ALL WIRING PULL BOXES SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - a. NATIONAL ELECTRIC CODE
 - b. RECOMMENDATIONS BY THE PARKS DEPARTMENT & THE PUBLIC WORKS DEPARTMENT
 - c. ALL WIRING TO BE CONTINUOUS
 - d. IF SPLICES ARE NECESSARY THEY ARE TO BE IN A VALVE BOX WITH A DRY SPLICE OR APPROVED EQUIVALENT (DBR OR DBY).
 - e. ALL WIRING UNDER PAYMENT OR ASPHALT TO BE IN CONDUCT (SEE DETAILS).
2. IT SHALL BE THE LANDSCAPE ARCHITECT'S/ENGINEER'S & CONTRACTOR'S RESPONSIBILITY TO CALL OUT ANY CONFLICT BETWEEN THE ABOVE LISTED CODES.

POINT OF CONNECTION:

1. THE CONTRACTOR/DEVELOPER SHALL PAY THE APPROPRIATE LEHI CITY FEES PRIOR TO ANY CONSTRUCTION.
2. DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE TAP TO THE CITY WATER MAIN OR PRESSURIZED IRRIGATION MAIN INCLUDING ALL APPLICABLE LABOR, MATERIALS, ROAD CUTS & ROAD CUT PERMITS.

02

IRRIGATION STANDARDS

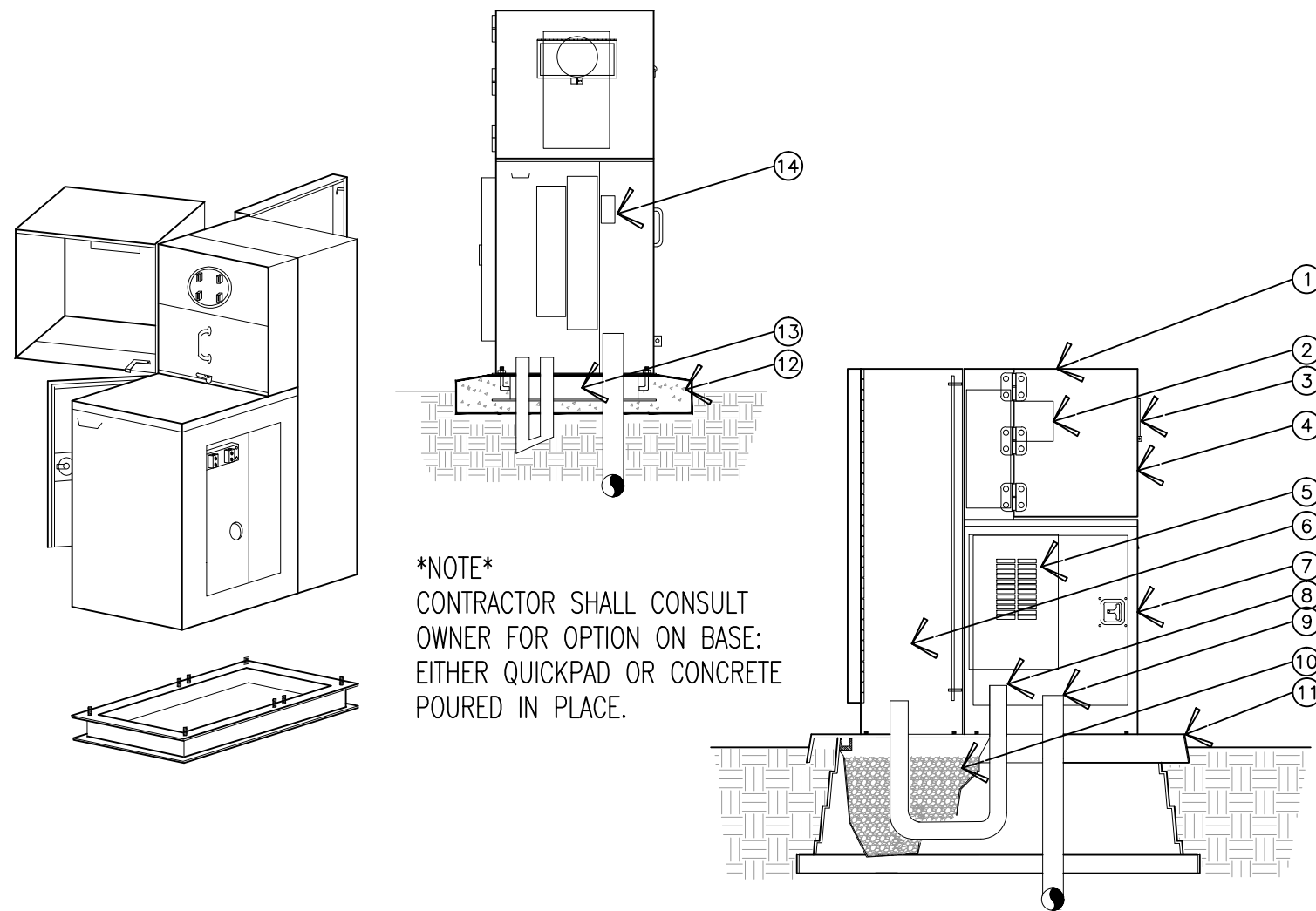
SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



LEHI CITY
LANDSCAPE / IRRIGATION
STANDARD DETAILS
REQUIRED ON ALL CITY PROJECTS

PARKS DEPARTMENT
IRRIGATION STANDARDS
SCALE : NO SCALE
DATE: 11/9/2016
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NOTE
 CONTRACTOR SHALL CONSULT
 OWNER FOR OPTION ON BASE:
 EITHER QUICKPAD OR CONCRETE
 POURED IN PLACE.

- ① STRONGBOX METER ENCLOSURE, STAINLESS STEEL NEMA TYPE 3R MPE-SERIES 100 OR 200 AMP SERVICE, OR ALL-SPEC EQUAL.
- ② COMMERCIAL METER SOCKET 100A OR 200A WITH TEST BLOCKS.
- ③ SERVICE METER VIEWING WINDOW.
- ④ SIDE HINGED REMOVABLE FRONT LID.
- ⑤ LOAD CENTER WITH MAIN BREAKER.
- ⑥ STRONG BOX CONTROL ENCLOSURE FULL LENGTH FRONT DOOR, LOCKABLE, PART# SB-1852SS. 18" X 52" X 12"
- ⑦ LOAD CENTER COMPARTMENT, GASKETED DOOR T-HANDLE LOCKABLE.
- ⑧ LOAD CONDUIT FROM LOAD CENTER SECTION INTO CUSTOMER ENCLOSURE. MINIMUM 2" AS PER POWER COMPANY.
- ⑨ SERVICE LINE CONDUIT, 3" FROM UTILITY TRANSFORMER. WIRE SIZE PER NEC STANDARDS FOR AMP LOAD.
- ⑩ PEA GRAVEL 3/4 FULL INSIDE QUICKPAD BASE.
- ⑪ QUICKPAD MOUNTING PAD, PART #QP-MPE.
- ⑫ POURED CONCRETE BASE, 6" MIN THICKNESS. EXTEND BASE 12" WIDER THAN OUTSIDE DIMENSION OF ENCLOSURE ON ALL SIDES.
- ⑬ STAINLESS STEEL ANCHOR BASE INSTALLED DURING CONCRETE POUR.
- ⑭ UTILITY LANDING LUG COMPARTMENT.

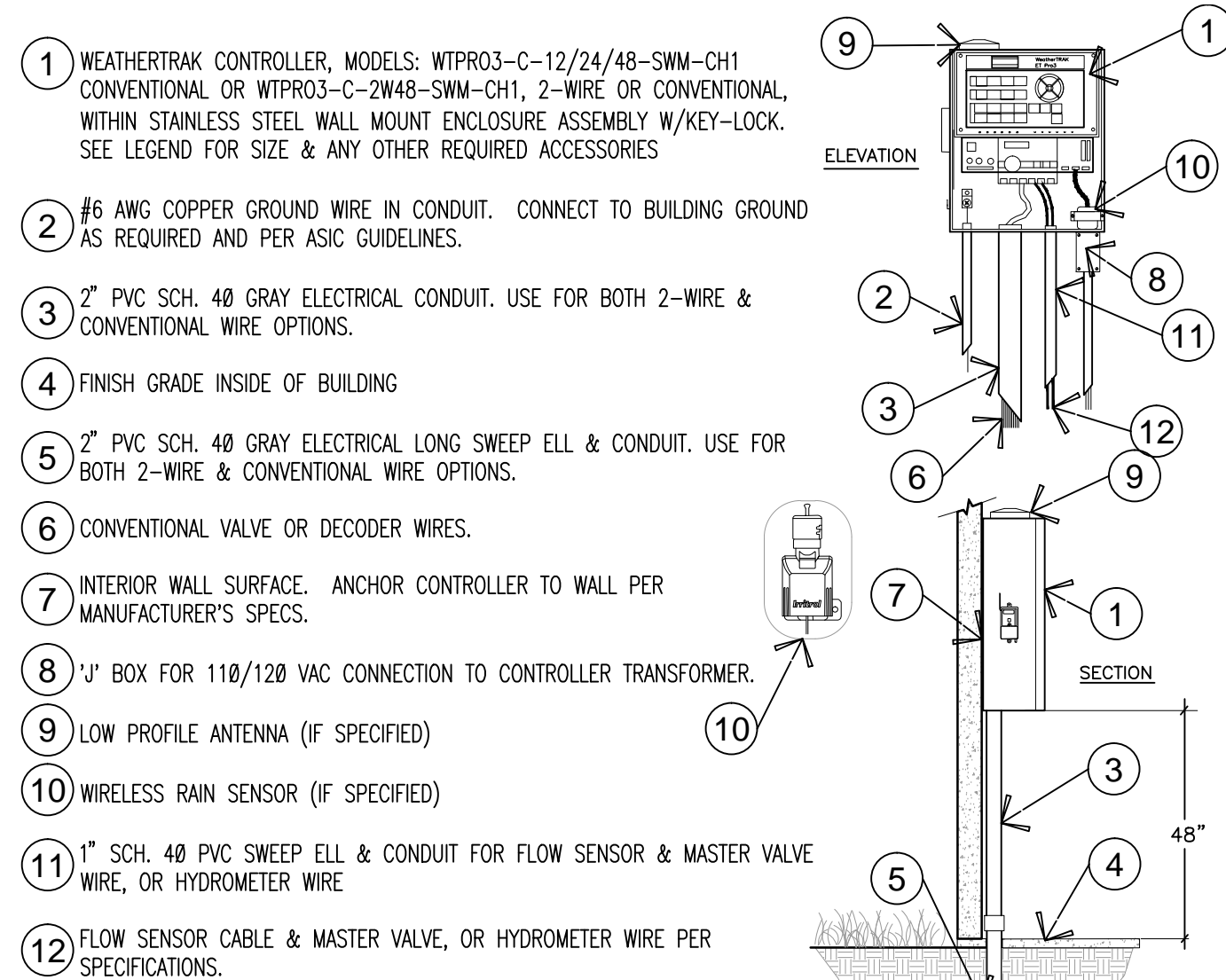
A1 METER / CONTROLLER ENCLOSURE

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH PARKS DEPARTMENT FOR ALL CONTROLLER DESIGNS.
2. ALL IRRIGATION CONTROLLERS SHALL BE EQUIPPED WITH A RAIN SENSOR, EVAPOTRANSPIRATION (ET) SENSOR, MASTER VALVE, & FLOW SENSOR AS APPROVED BY THE LEHI CITY PARKS DEPARTMENT.
3. CONTROLLERS SHALL BE MOUNTED ON A STABLE WALL, POWER RACK OR FORMED & CONSTRUCTED CONCRETE BASE PEDESTAL MOUNT OVER 6" OF COMPACTED GRAVEL. SUBGRADE SHALL BE COMPACTED TO 95%. BOX SHALL BE VANDAL RESISTANT & WEATHER PROOF AND SHALL NOT BE MOUNTED TO METER BASE.
4. CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR 110 VOLT ELEC. SERVICE. THIS SHALL BE INSPECTED & APPROVED BY CITY PARKS DEPARTMENT.
5. ALL 110 VOLT WIRES TO BE IN SUFFICIENTLY SIZED CONDUIT & BURIED MIN. 24" DEEP.
6. ALL LOCAL, STATE & NATIONAL CODES SHALL TAKE PRECEDENCE IN THE FURNISHING & CONNECTING A 110 VOLT ELECTRICAL SERVICE TO THE CONTROLLER.



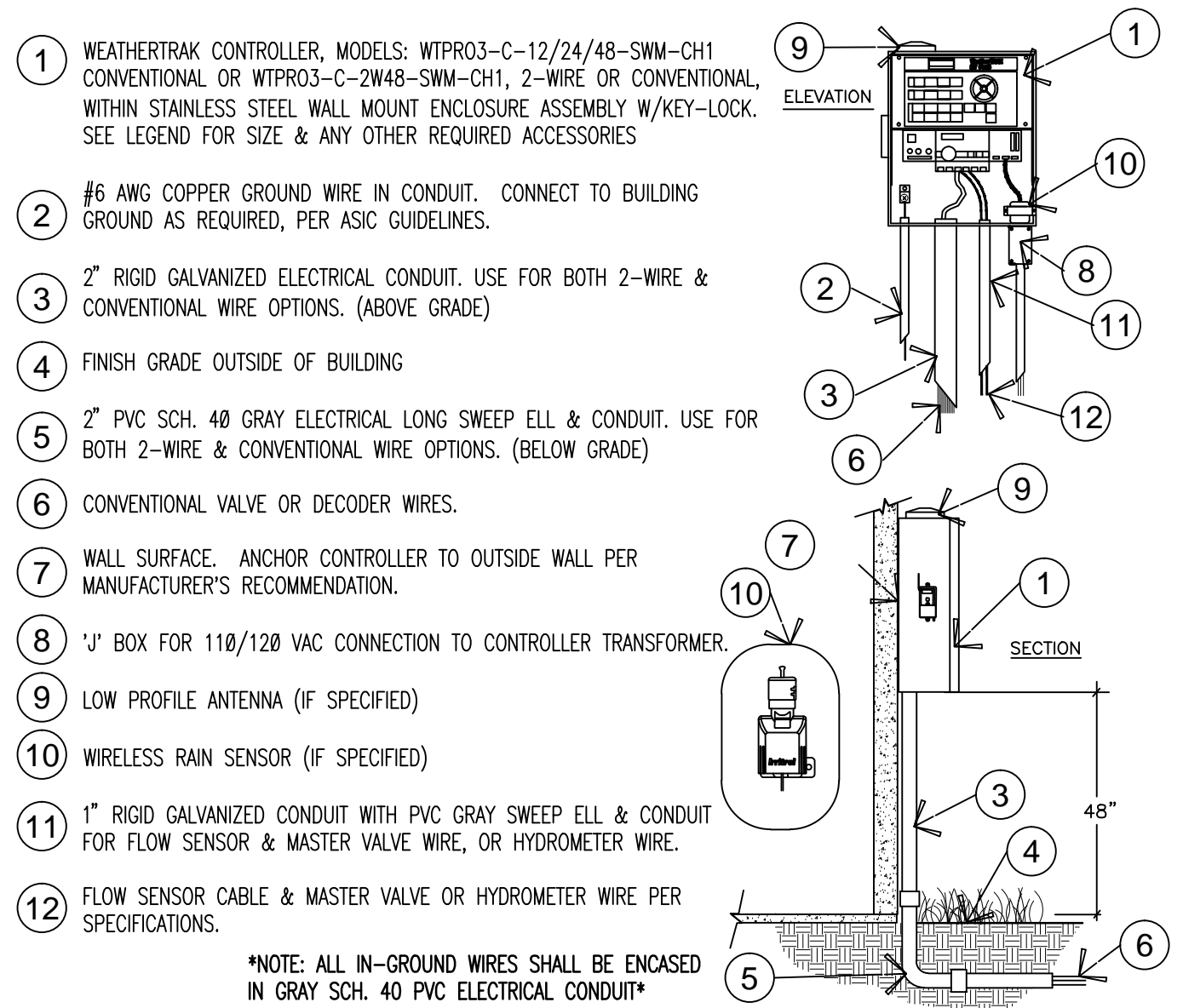
NOTE: ALL IN-GROUND WIRES SHALL BE ENCASED IN GRAY SCH. 40 PVC ELECTRICAL CONDUIT

A2 INDOOR WALL MT CONTROLLER

SCALE: NTS LANDSCAPE & IRRIGATION DETAIL

NOTES:

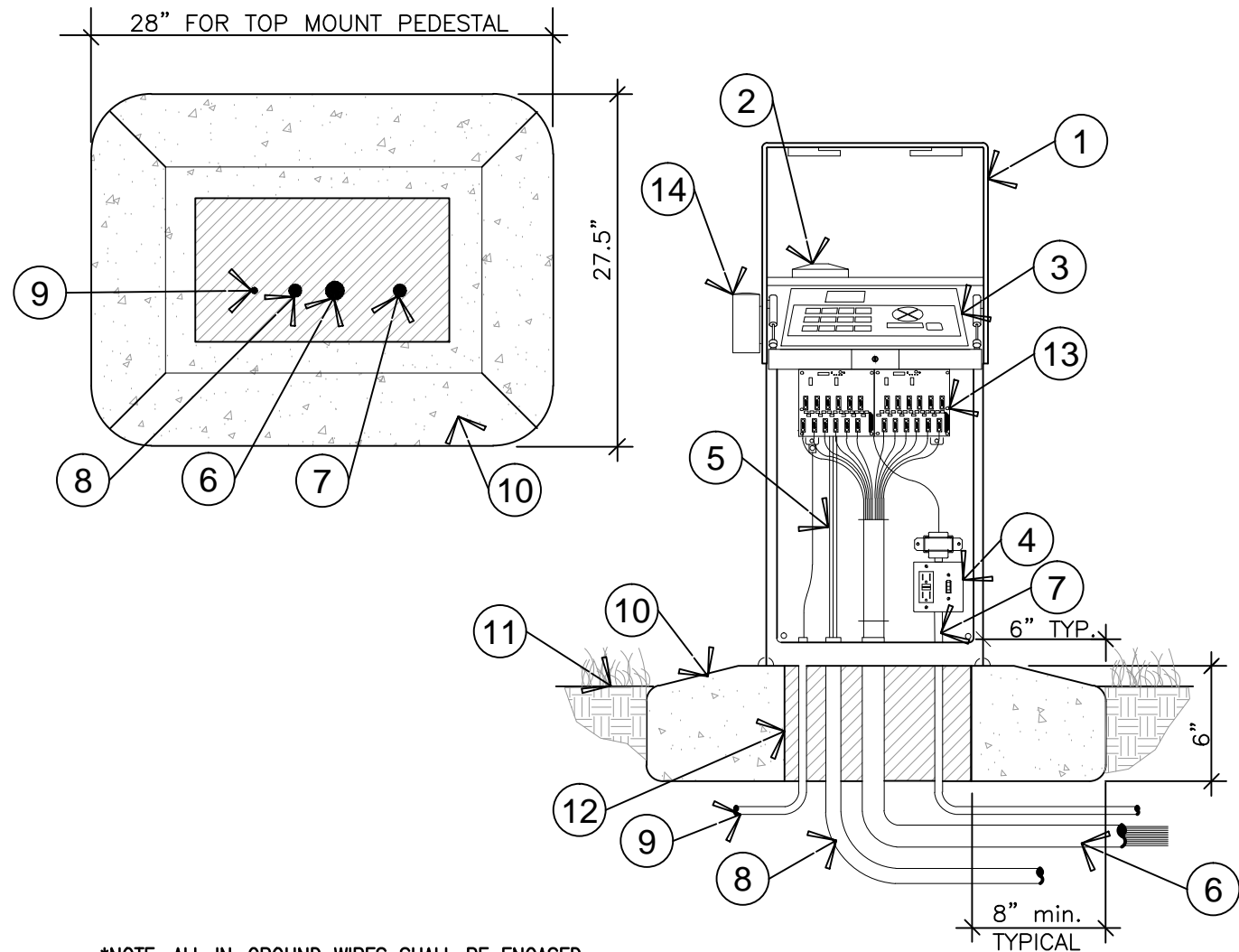
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2. ALL IRRIGATION CONTROLLERS SHALL BE EQUIPPED WITH A RAIN SENSOR, EVAPOTRANSPIRATION (ET) SENSOR, MASTER VALVE, & FLOW SENSOR AS APPROVED BY THE LEHI CITY PARKS DEPARTMENT.
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6. ALL LOCAL, STATE & NATIONAL CODES SHALL TAKE PRECEDENCE IN THE FURNISHING & CONNECTING A 110 VOLT ELECTRICAL SERVICE TO THE CONTROLLER.



A3 **OUTDOOR WALL MT CONTROLLER**
SCALE: NTS LANDSCAPE & IRRIGATION DETAIL

NOTES:

1. ALL IRRIGATION CONTROLLERS SHALL BE EQUIPPED WITH A RAIN SENSOR, EVAPOTRANSPIRATION (ET) SENSOR, MASTER VALVE & FLOW SENSOR AS APPROVED BY THE LEHI CITY PARKS DEPARTMENT.
2. CONTROLLERS SHALL BE MOUNTED ON A STABLE WALL, POWER RACK OR FORMED & CONSTRUCTED CONCRETE BASE PEDESTAL MOUNTED OVER 6" OF COMPACTED GRAVEL. BOX SHALL BE VANDAL RESISTANT & WEATHER PROOF AND SHALL NOT BE MOUNTED TO METER BASE.
3. CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR 110 VOLT ELEC. SERVICE. THIS SHALL BE INSPECTED & APPROVED BY CITY PARKS DEPARTMENT.
4. ALL 110 VOLT WIRES TO BE IN SUFFICIENTLY SIZED CONDUIT & BURIED MIN. 24" DEEP.
5. ALL LOCAL, STATE, & NATIONAL CODES SHALL TAKE PRECEDENCE IN THE FURNISHING & CONNECTING A 110 VOLT ELECTRICAL SERVICE TO THE CONTROLLER.
6. CONTRACTOR SHALL BE PREPARED TO INSTALL PEDESTAL CONTROLLER ON A POURED CONCRETE OR A VIT QUICKPAD BASE. OWNER SHALL NOTIFY CONTRACTOR WHICH BASE SHALL BE USED PRIOR TO COMMENCEMENT OF THE PROJECT. CONTRACTOR SHALL VERIFY NUMBER & SIZE OF CONDUITS REQUIRED FOR INSTALLATION. PROVIDE A MIN. OF 2" OF CONCRETE FROM MOUNTING BOLT TO INTERIOR BASE OPENING.



*NOTE: ALL IN-GROUND WIRES SHALL BE ENCASED
IN GRAY S/40 PVC ELECTRICAL CONDUIT*

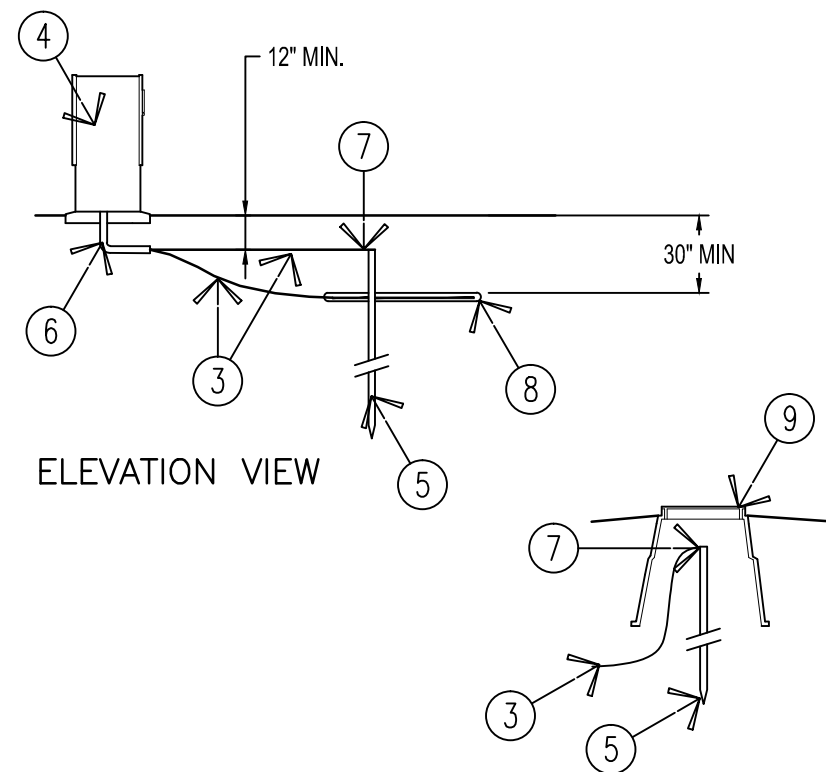
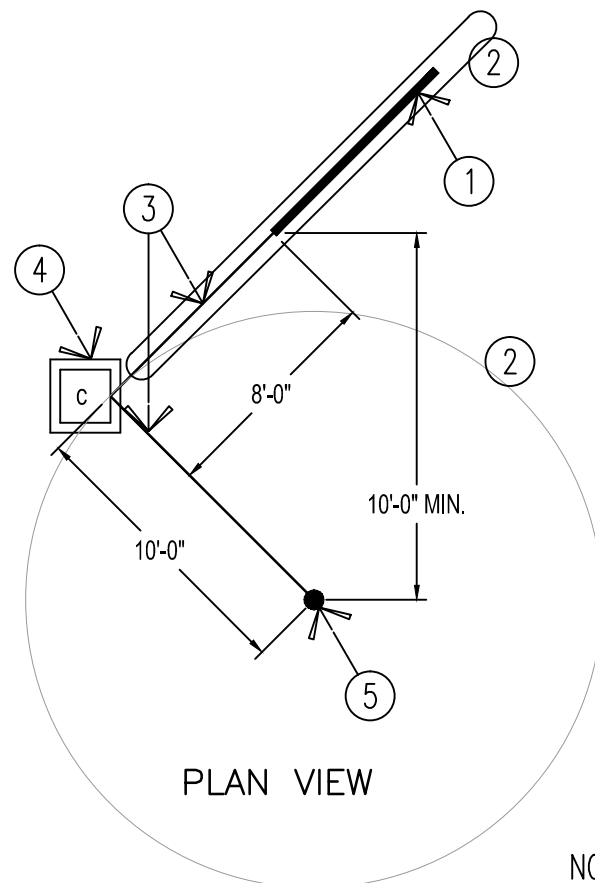
- 1 WEATHERTRAK CONTROLLER, MODELS: WTPRO3-C-12/24/48-SPT CONVENTIONAL OR WTPRO3-C-2W48-SPT, 2-WIRE OR CONVENTIONAL, WITHIN STAINLESS STEEL PEDESTAL MOUNTED ENCLOSURE ASSEMBLY W/KEY-LOCK. SEE LEGEND FOR SIZE & ANY OTHER REQUIRED ACCESSORIES.
- 2 LOW PROFILE ANTENNA (IF SPECIFIED)
- 3 WEATHERTRAK ET PRO3 SERIES CONTROLLER. SEE DRAWINGS & SPECS FOR OTHER INFORMATION
- 4 GFCI & POWER SWITCH
- 5 FLOW SENSOR CABLE & MASTER VALVE WIRES PER SPECIFICATIONS.
- 6 3" PVC SCH. 40 SWEEP 90 & CONDUIT FOR CONTROL WIRES.
- 7 1" PVC SCH. 40 SWEEP 90 & CONDUIT FOR 120 VAC FROM METERED SUPPLY.
- 8 2" PVC SCH. 40 SWEEP 90 & CONDUIT FOR FLOW SENSOR & MASTER VALVE WIRING.
- 9 1-1/2" PVC SCH. 40 SWEEP 90 & CONDUIT FOR GROUNDING, PER ASIC GUIDELINES.
- 10 POURED CONCRETE BASE, SLOPE TO DRAIN
- 11 FINISH GRADE, 2" BELOW TOP OF CONCRETE BASE
- 12 FILL VOIDS WITH CONCRETE SLURRY MIX
- 13 UNIVERSAL RADIO REMOTE INTERFACE (IF SPECIFIED)
- 14 RAIN SENSOR WITHIN VIT RAIN SENSOR ENCLOSURE (IF SPECIFIED)

A4

PEDESTAL TOP ENTRY ENCLOSURE

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



- ① COPPER GROUND PLATE
(4" X 96" X .0625")
- ② ELECTRICAL SPHERE OF
INFLUENCE BOUNDARIES
- ③ #6 AWG BARE COPPER WIRE
- ④ IRRIGATION CONTROLLER,
SEE OTHER DETAILS
- ⑤ 5/8" X 10' UL LISTED
COPPER CLAD GROUND ROD
- ⑥ PVC SWEEP ELL, 1-1/2"
OR LARGER
- ⑦ 'CADWELD' CONNECTION
- ⑧ 'POWER SET' EARTH
CONTACT MATERIAL
- ⑨ 10" ROUND VALVE BOX

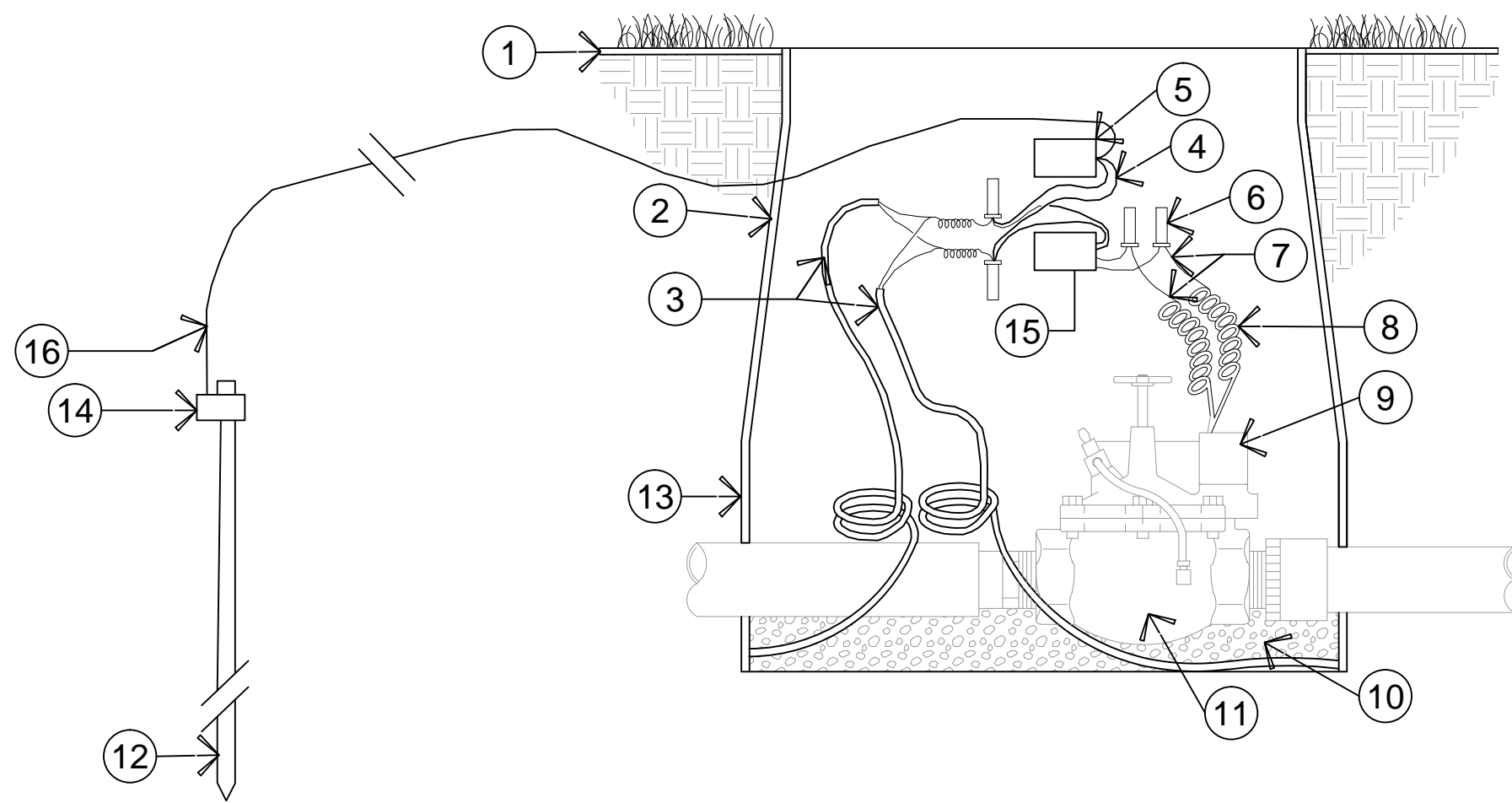
NOTES:

1. DO NOT INSTALL ANY OTHER WIRES OR CABLE WITHIN THE SPHERE OF INFLUENCE AREA.
2. PLACE 100 LB POWER SET SOIL AMENDMENT WITH EACH PLATE PER MANUFACTURER'S RECOMMENDATIONS.

A5 GROUNDING GRID INSTALLATION

SCALE: NTS

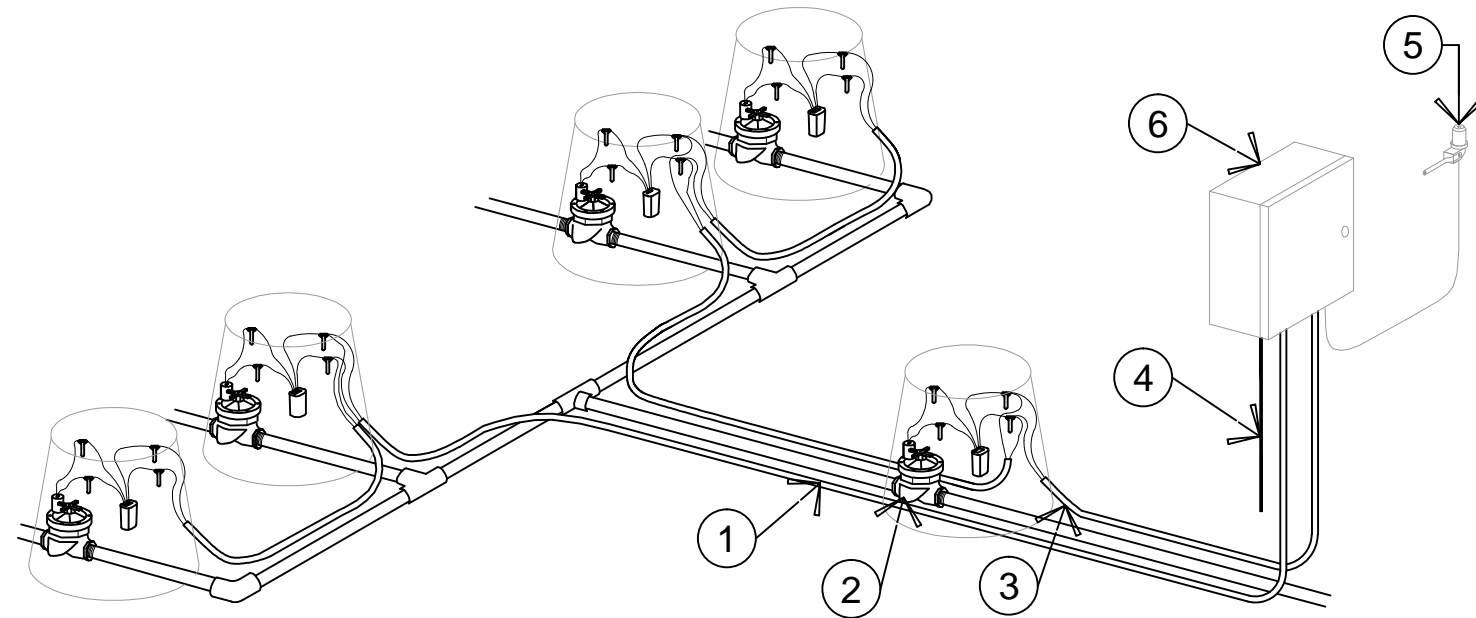
LANDSCAPE & IRRIGATION DETAIL



- ① FINISH GRADE
- ② VALVE BOX
- ③ 2-WIRE COMMUNICATION PATH *IN CONDUIT*
- ④ BLUE WIRES TO 2-WIRE COMMUNICATION PATH
- ⑤ WT2W-LSP SURGE ARRESTOR (YELLOW CASE)
- ⑥ 3M DBR/Y-6 SPLICE
- ⑦ WHITE WIRES TO SOLENOID
- ⑧ EXPANSION COILS
- ⑨ SOLENOID
- ⑩ GRAVEL
- ⑪ ELECTRIC VALVE (SEE OTHER DETAIL)
- ⑫ 5/8" DIA. X 8' COPPER CLAD GROUND ROD DRIVEN INTO GROUND WITH TOP OF ROD A MIN. OF 6" BELOW GRADE. 100 OHMS OR LESS. LOCATE PER WEATHERTRAK REQ'S.
- ⑬ EXTENSION (LENGTH AS REQUIRED)
- ⑭ CAD WELD CONNECTION
- ⑮ WT2W-SVD-11 DECODER (BLUE CASE)
- ⑯ GROUND WIRE OF WT2W-LSP CONNECTED TO GROUND ROD.

B1 2-WIRE DECODER, SURGE PROTECTOR, GROUNDING SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



NOTES:

1. ALL WIRE SPLICING SHALL BE MADE WITH APPROVED CONNECTIONS.
2. MAKE ALL WIRE SPLICES IN VALVE BOXES.
3. LEAVE A MINIMUM OF 12" EXTRA WIRE AT ALL SPLICE POINTS.
4. MAXIMUM DISTANCE FROM DECODER TO VALVE = 150 FT.
5. MAXIMUM WIRE LENGTH = 10,200 FT.
6. WIRE LENGTHS INCLUDE MASTER VALVE & # $\frac{16}{2}$ WIRE
7. INCLUDE PAIGE WIRE 'DECODER CABLE FUSE DEVICES' (DCFD's) AT ALL INTERSECTIONS.
8. REFER TO OTHER DETAILS FOR SURGE PROTECTION

- ① WIRE PATH #1
- ② MASTER VALVE
- ③ WIRE PATH #2
- ④ 120 VAC POWER
- ⑤ RAIN SENSOR
- ⑥ CONTROLLER SHOWN AS REFERENCE ONLY

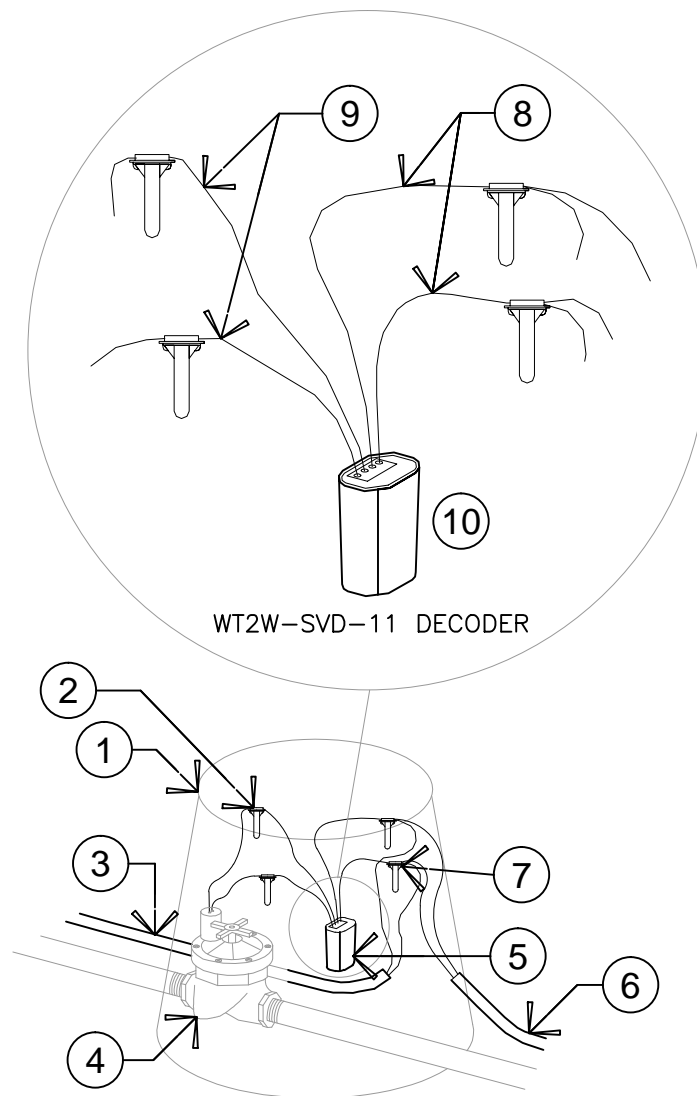
NUMBER OF SIMULTANEOUS VALVES	VALVES EVENLY DISTRIBUTED ALONG 2-WIRE (FT)		
	AWG 18	AWG 16	AWG 14
1	7.000	11.000	17.800
2	6.400	10.200	16.300
3	5.500	8.800	14.100
4	4.900	7.800	12.500
5	4.400	7.000	11.200
6	4.000	6.300	10.100
7	3.600	5.800	9.200
8	3.300	5.300	8.500

WORST CASE 2-WIRE PATH LENGTH LIMITS WITH ALL DECODERS AT END OF 2-WIRE PATH	
NUMBER OF ACTIVE VALVES ON 2-WIRE PATH	MAXIMUM WIRE LENGTH (FT) ASSUMING # $\frac{16}{2}$ WIRE
1	6,200
2	5,600
3	4,900
4	4,300

B2 2-WIRE MULTIPLE PATH EXAMPLE

SCALE: NTS

LANDSCAPE & IRRIGATION



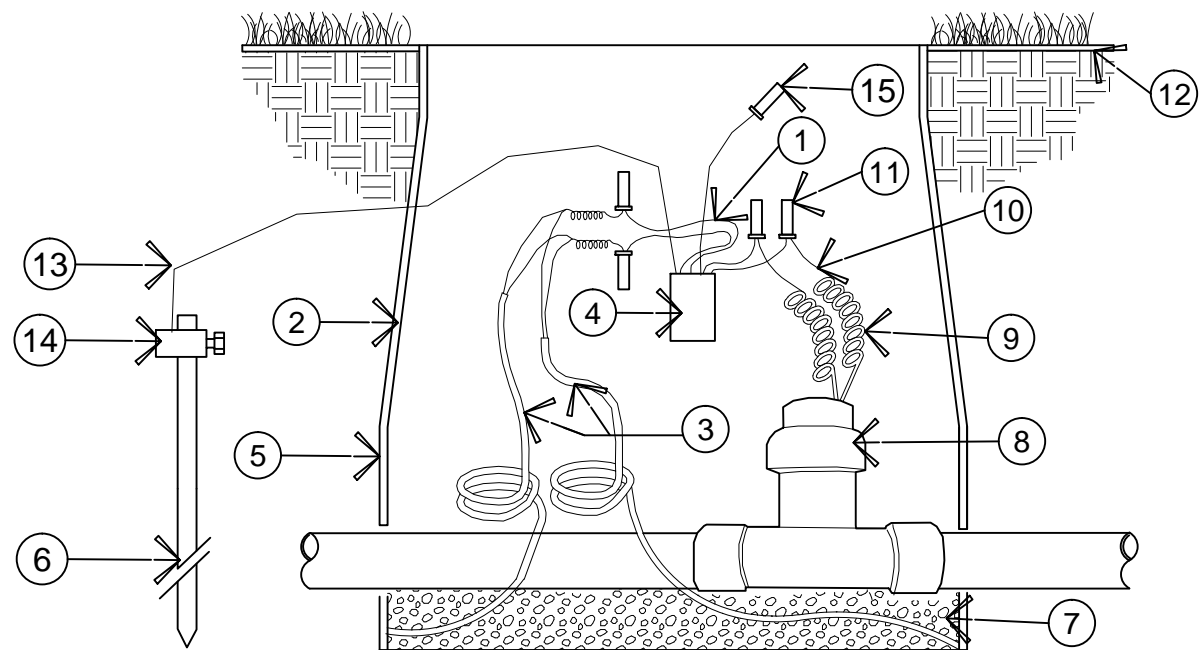
- ① VALVE BOX
- ② SPLICE (WHITE)
- ③ CONDUIT 2-WIRE PATH
- ④ STATION CONTROL VALVE
- ⑤ 2-WIRE STATION DECODER
- ⑥ 2-WIRE PATH *ALL WIRE IN CONDUIT*
- ⑦ SPLICE (BLUE)
- ⑧ WHITE WIRES TO VALVE SOLENOID
- ⑨ BLUE WIRES CONNECT TO 2-WIRE PATH
- ⑩ LABEL DECODER WITH STATION NUMBER

B3

2-WIRE DECODER WIRING

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



- | | |
|--|---|
| ① BLUE WIRES TO 2-WIRE COMMUNICATION PATH | ⑧ FLOW SENSOR / HYDROMETER |
| ② VALVE BOX | ⑨ EXPANSION COILS |
| ③ 2-WIRE PATH *ALL WIRE IN CONDUIT* | ⑩ RED & BLACK WIRES TO FLOW SENSOR |
| ④ WT2W-FD (FLOW DECODER) | ⑪ 3M DBR/Y-6 SPLICE |
| ⑤ EXTENSION (LENGTH AS REQUIRED) | ⑫ FINISH GRADE |
| ⑥ 5/8" DIA. X8 COPPER GROUND ROD DRIVEN INTO GROUND WITH TOP OF ROD A MIN OF 6" BELOW GRADE. 100 OHMS OR LESS. | ⑬ GREEN/ YELLOW STRIPED WIRES TO GROUNDING ROD |
| ⑦ GRAVEL | ⑭ CAD WELD CONNECTION |
| | ⑮ SINGLE GREEN WIRE-OPTIONAL LED POWER- CAP WHEN NOT IN USE |

B4 2-WIRE FLOW DECODER WIRING

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL

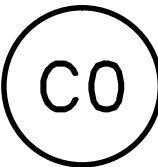
POC SIZE	SHUT OFF SIZE	MAIN LINE SIZE	FILTER SIZE	MASTER VALVE SIZE	FLOW METER SIZE	DEVICE TO USE	MAXIMUM AREA OF COVERAGE
1"	1"	1-1/4"	1-1/2"	1"	1"	Separate devices	Up to 20,000 sq/ft
2"	2"	2"	2"	1-1/2"	1-1/2"	Hydrometer	Up to 75,000 sq/ft
2"	2"	2-1/2"	3"	2"	2"	Hydrometer	Up to 115,000 sq/ft
4"	4"	3"	3"	3"	3"	Hydrometer	165,000 sq/ft
4"	4"	4"	4"	3"	3"	Hydrometer	Up to 300,000 sq/ft
6"	6"	6"	6"	4"	4"	Hydrometer	Up to 650,000 sq/ft

Notes:

Minimum Main Line size acceptable is 1-1/4"

- 3/4" POC's, Stop & Waste Valves, Main line pipe shall not be allowed or accepted by Lehi City for design or construction.
- 1" Main line shall not be allowed or accepted by Lehi City for design or construction.
- 1-1/2" POC's, Stop & Waste Valves, Main Line pipe, shall not be allowed or accepted by Lehi City for design or construction.
- 3" POC's, Shut-off Valves, shall not be accepted by Lehi City for design or construction.

For areas over 650,000 sq/ft or 15 acres, consult with Lehi City Parks, Water & Engineering to determine proper equipment sizing.



EQUIPMENT SIZING TABLE

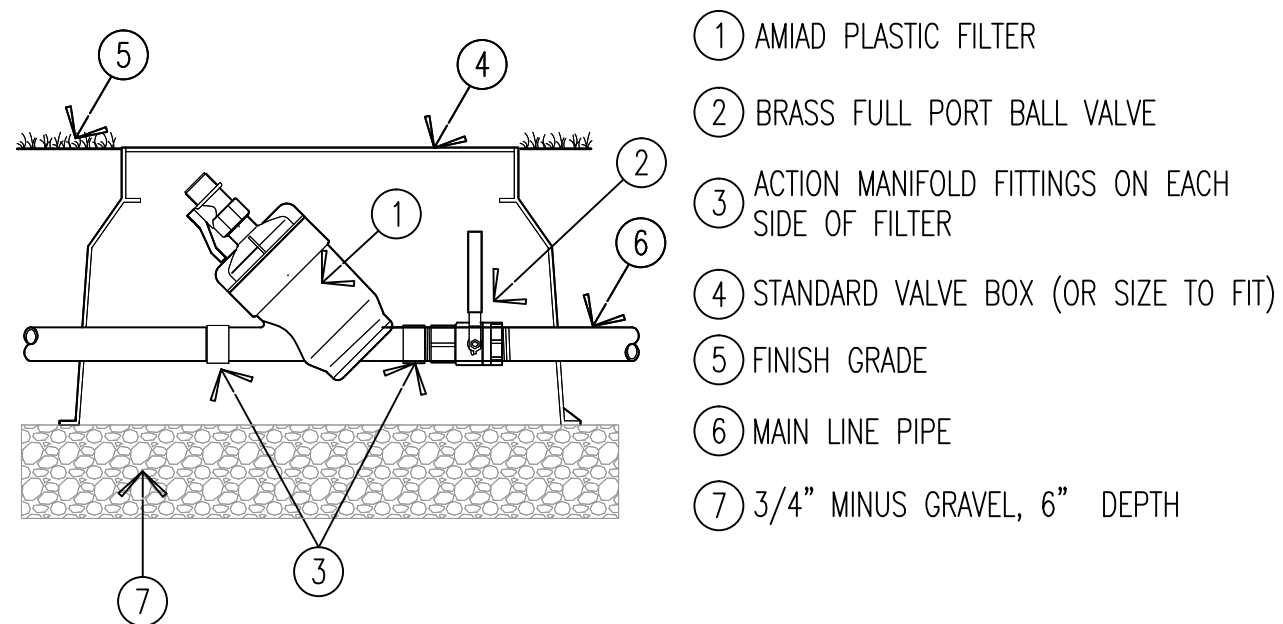
SCALE: NTS

LANDSCAPE / IRRIGATION DETAIL



LEHI CITY
LANDSCAPE / IRRIGATION
STANDARD DETAILS
REQUIRED ON ALL CITY PROJECTS

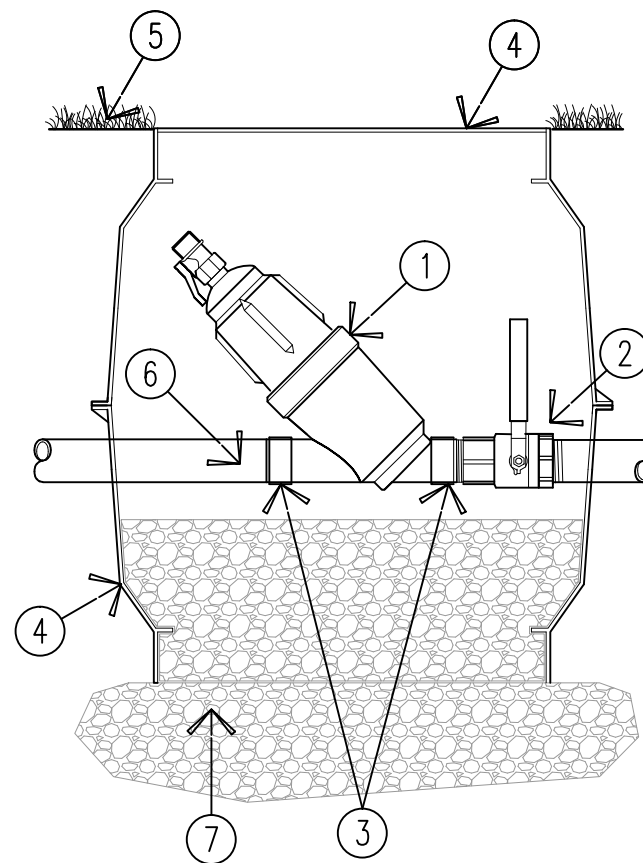
PARKS DEPARTMENT
EQUIPMENT SIZING TABLE
SCALE : NO SCALE
DATE: 11/9/2016
REVISION:
REVISION DATE:



NOTE:
 ALL SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH AN APPROVED SYSTEM FILTER,
 UNLESS OTHERWISE REQUIRED/APPROVED BY THE LEHI CITY PARKS DEPARTMENT.

C1 SMALL FILTER (1")

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL

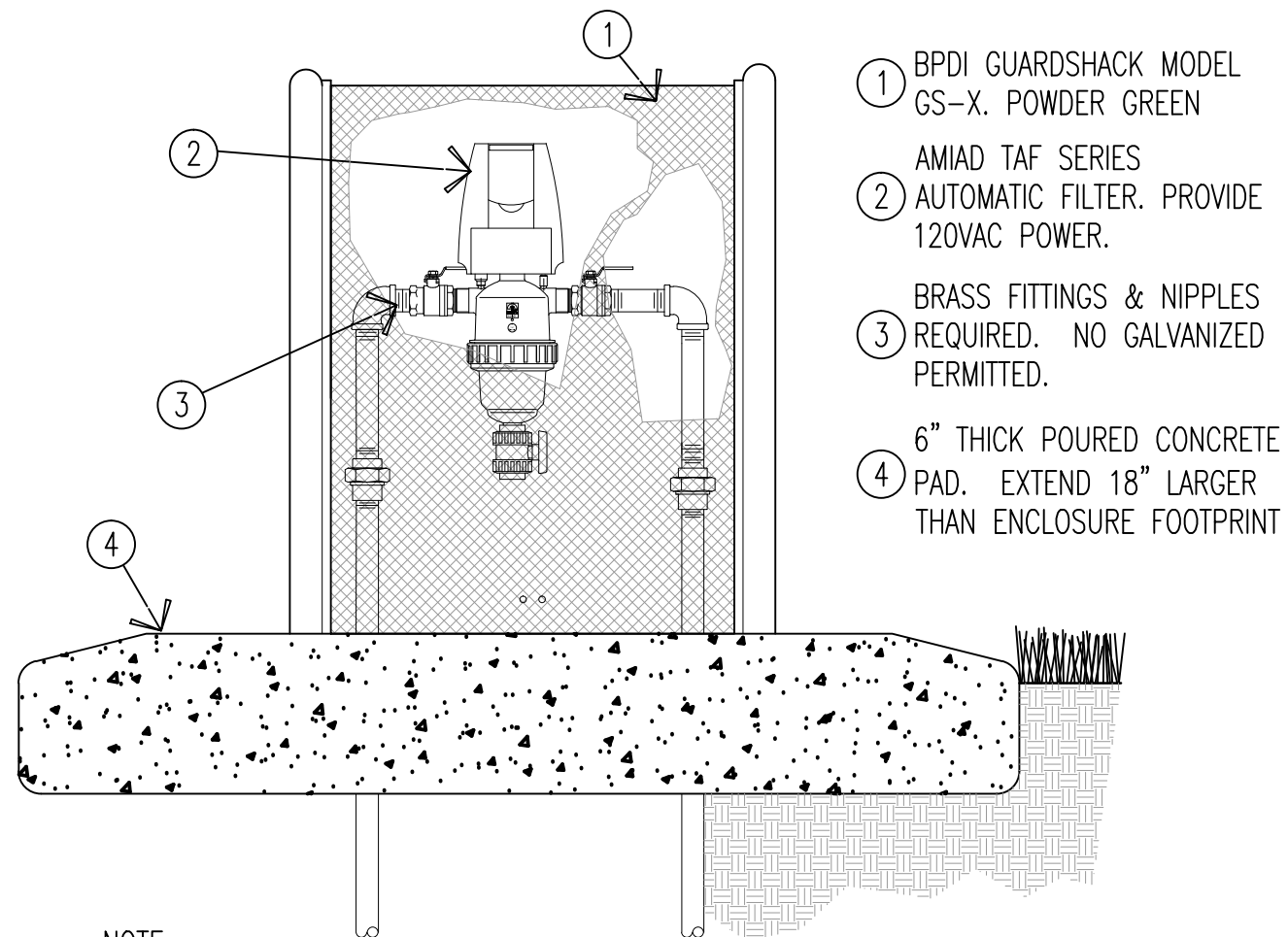


- ① AMIAD PLASTIC FILTER
- ② BRASS FULL PORT BALL VALVE
- ③ ACTION MANIFOLD FITTINGS ON EACH SIDE OF FILTER
- ④ VALVE BOXES TO FIT
- ⑤ FINISH GRADE
- ⑥ MAIN LINE PIPE
- ⑦ 3/4" MINUS GRAVEL

NOTE:
ALL SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH AN APPROVED SYSTEM FILTER,
UNLESS OTHERWISE REQUIRED/APPROVED BY THE LEHI CITY PARKS DEPARTMENT.

C2 MEDIUM FILTER 1-1/2" - 2"

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL

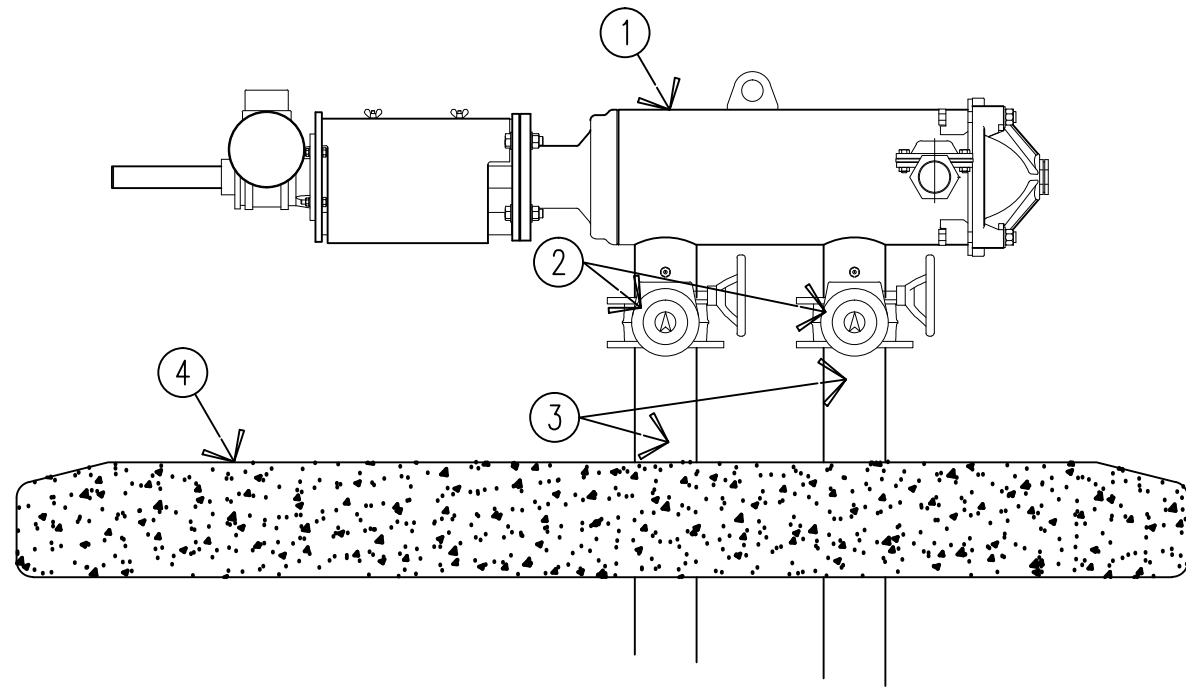


- ① BPGI GUARDSHACK MODEL GS-X. POWDER GREEN
- ② AMIAD TAF SERIES AUTOMATIC FILTER. PROVIDE 120VAC POWER.
- ③ BRASS FITTINGS & NIPPLES REQUIRED. NO GALVANIZED PERMITTED.
- ④ 6" THICK POURED CONCRETE PAD. EXTEND 18" LARGER THAN ENCLOSURE FOOTPRINT

NOTE:
ALL SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH AN APPROVED SYSTEM FILTER,
UNLESS OTHERWISE REQUIRED/APPROVED BY THE LEHI CITY PARKS DEPARTMENT.

C3 LARGE FILTER 2" – 3"

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL



① AMIAD SAF AUTOMATIC FLUSH ELECTRIC FILTER.
PROVIDE 120 VAC POWER

② BUTTERFLY VALVES

③ ALL FITTINGS & SPOOLS TO BE DUCTILE IRON

④ 6" THICK, POURED CONCRETE PAD. MUST
EXTEND 24" LARGER THAN SHADOW OF FILTER.

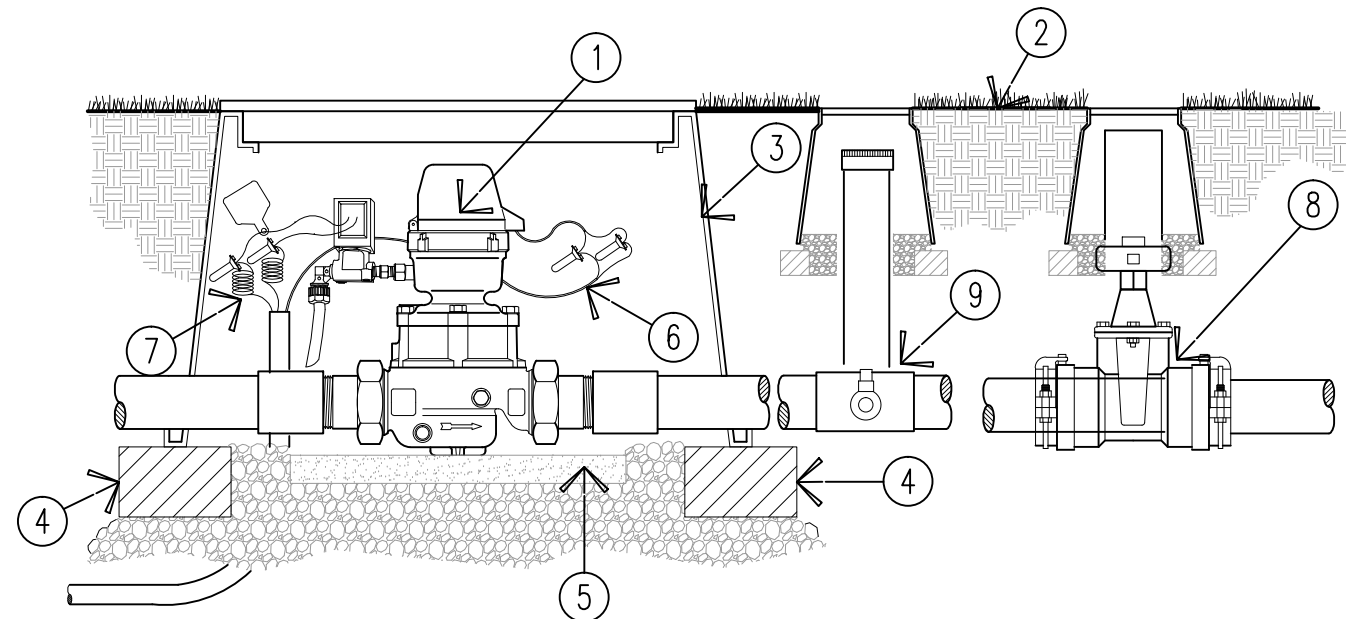
NOTE:

ALL SPRINKLER SYSTEMS SHALL BE
EQUIPPED WITH AN APPROVED
SYSTEM FILTER, UNLESS OTHERWISE
REQUIRED/APPROVED BY THE LEHI
CITY PARKS DEPARTMENT.

C4 FLANGED FILTER 3" – 6"

SCALE: NTS

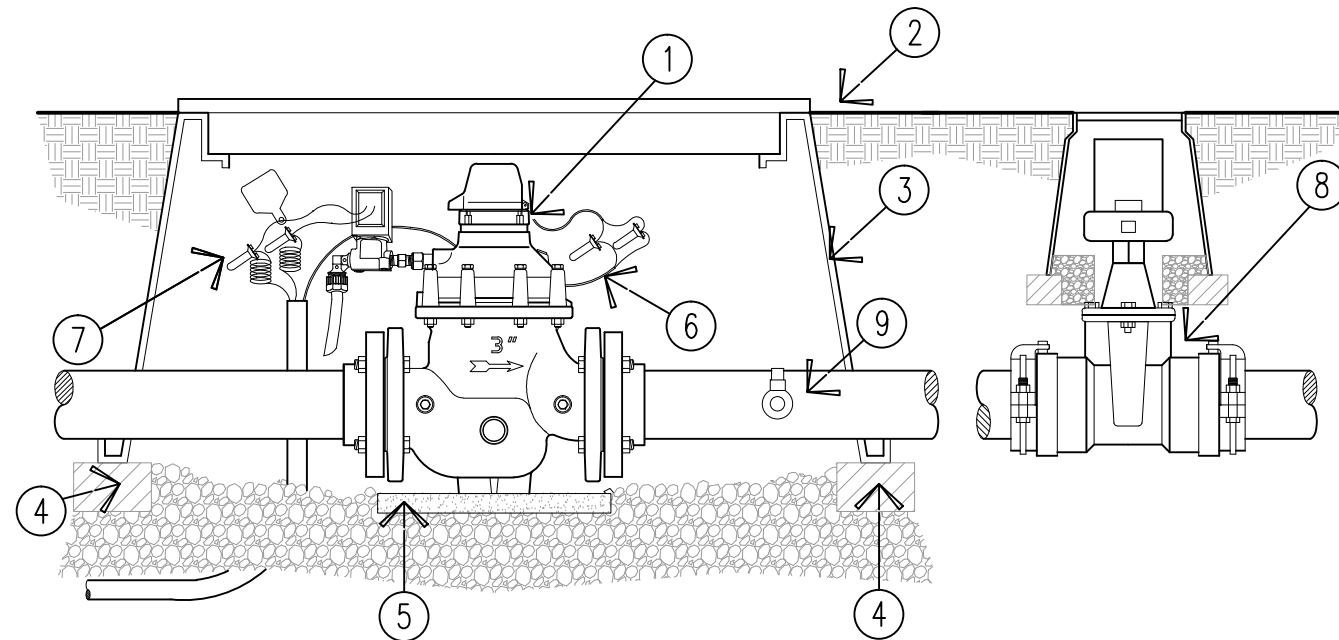
LANDSCAPE / IRRIGATION DETAIL



- ① 1-1/2" or 2" NETAFIM HYDROMETER WITH ELECTRONIC DIGITAL REGISTER
- ② FINISH GRADE
- ③ JUMBO VALVE BOX
- ④ BRICKS (4)
- ⑤ CONCRETE PAVER
- ⑥ FLOW METER WIRE
- ⑦ MASTER VALVE WIRE
- ⑧ LINE VALVE DOWNSTREAM OF HYDROMETER. SEE DETAIL F1
- ⑨ DRAIN VALVE, SEE DETAIL F2

D1 THREADED HYDROMETER

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL



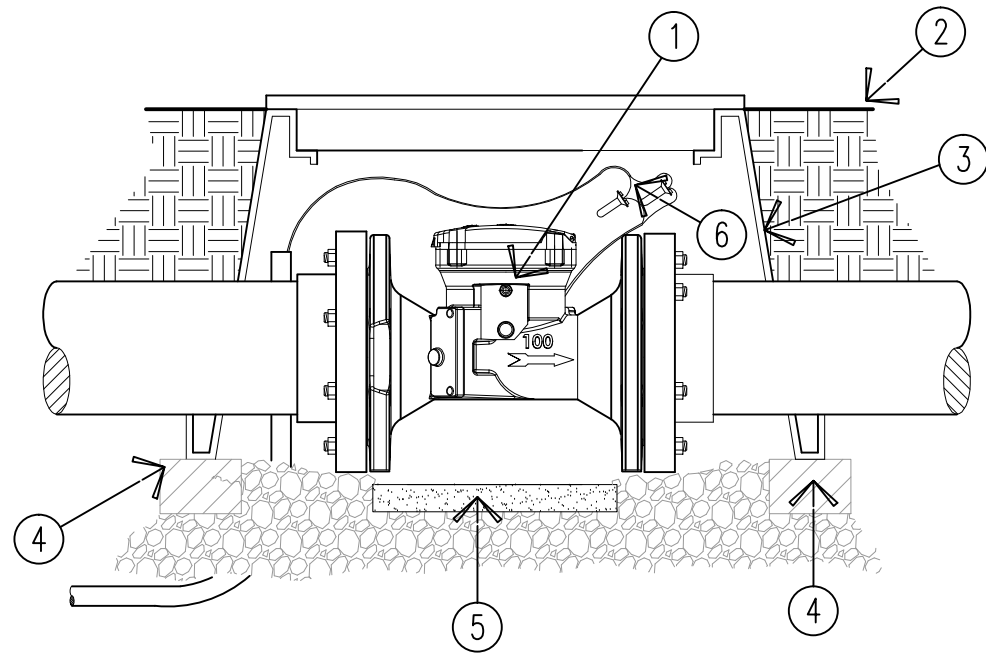
- ① 3-4" NETAFIM FLANGED HYDROMETER WITH ELECTRONIC DIGITAL REGISTER
- ② FINISH GRADE
- ③ 17X13X18 LARGE VALVE BOX
- ④ BRICKS (4)
- ⑤ CONCRETE PAVER
- ⑥ FLOW METER WIRE
- ⑦ MASTER VALVE WIRE
- ⑧ LINE VALVE DOWNSTREAM OF HYDROMETER. SEE DETAIL F1
- ⑨ DRAIN VALVE, THREADED CONNECTION TO DUCTILE IRON SPOOL. SEE DETAIL F2

D2

FLANGED HYDROMETER

SCALE: NTS

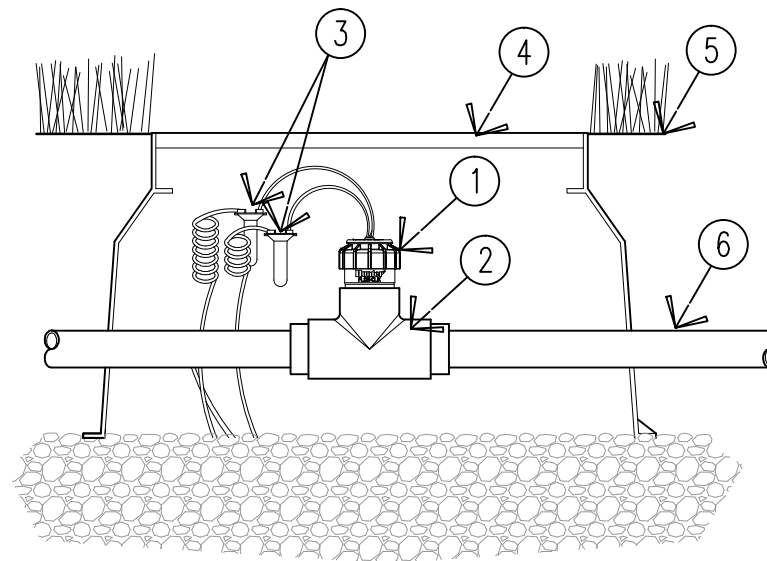
LANDSCAPE / IRRIGATION DETAIL



- ① 4" OR LARGER NETAFIM OCTAVE HYDROMETER
- ② FINISH GRADE
- ③ JUMBO SIZE VALVE BOX
- ④ BRICKS (4)
- ⑤ CONCRETE PAVER
- ⑥ FLOW METER WIRE

D3 OCTAVE FLOW METER

SCALE: NTS LANDSCAPE / IRRIGATION DETAIL



- ① FLOW SENSOR MODULE
- ② BRASS TEE ASSEMBLY
- ③ COMMUNICATION WIRE AS REQUIRED FROM FLOW SENSOR BACK TO CONTROLLER
- ④ STANDARD VALVE BOX
- ⑤ FINISH GRADE
- ⑥ MAIN LINE PIPE

NOTES:

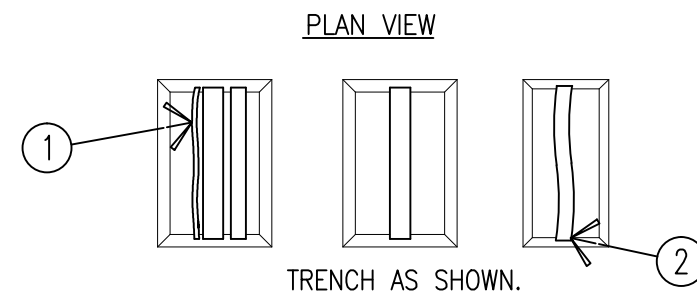
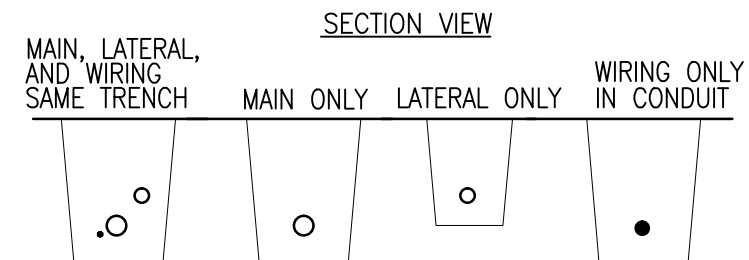
1. INLET PIPE LENGTH OF SENSOR MUST BE MIN. 10X PIPE DIA. STRAIGHT, CLEAN RUN OF PIPE, NO FITTINGS OR TURNS. OUTLET PIPE LENGTH OF SENSOR MUST BE MIN. 5X PIPE DIA. OF STRAIGHT CLEAN RUN OF PIPE, NO FITTINGS OR TURNS.
2. FLOW SENSOR REQUIRED & SHALL BE APPROVED BY LEHI CITY PARKS DEPARTMENT.

D7

BRASS FLOW SENSOR

SCALE: NTS

LANDSCAPE / IRRIGATION DETAIL



① RUN WIRING BENEATH
& BESIDE MAINLINE.

② ALL SOLVENT WELD
PLASTIC PIPING TO
BE SNAKED IN

NOTES:

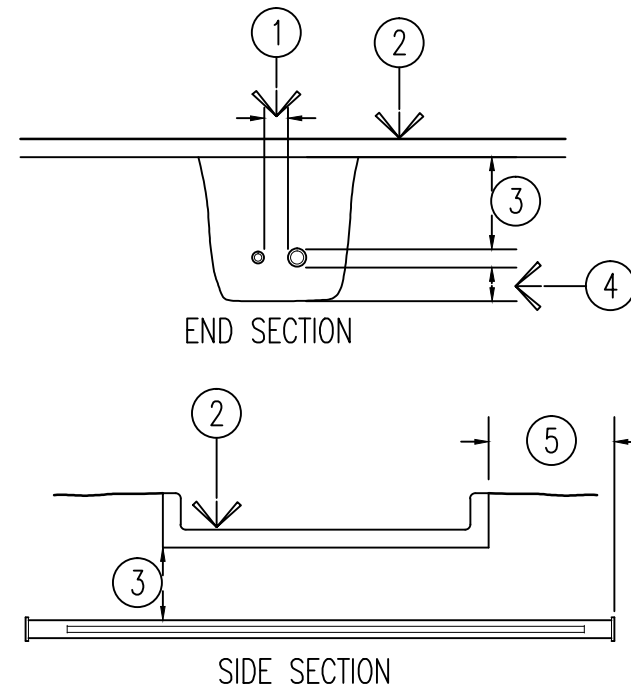
1. SLEEVES SHALL BE TWICE THE DIAMETER OF THE PIPE WITHIN.
2. PIPE & WIRE SHALL BE PLACED IN SEPARATE SLEEVES.
3. TRENCHES SHALL BE EXCAVATED 2" BELOW NORMAL TO ALLOW FOR PROPER BEDDING. SELECTED FILL SHALL BE USED IF SOIL CONDITIONS ARE ROCKY.
4. MAIN LINE SHALL HAVE 18-24" COVER, LATERAL LINE SHALL HAVE 8-12" MIN. COVER. 4" OF SCREENED FILL SHALL COVER THE PIPE. THE TOP 6" OF COVER SHALL CONTAIN NO ROCKS 1" OR LARGER. THE REMAINING BACKFILL SHALL CONTAIN NO ROCKS/AGGREGATES LARGER THAN 2".
5. TRENCH FILL SHALL BE THOROUGHLY COMPACTED & LEVELED WITH ADJACENT SOIL.
6. PLASTIC PIPE SHALL BE EXTRUDED FROM PVC 1120-1220 COMPOUND & LABELED AS SUCH. ALL PVC PIPE SHALL BE SCH. 40. ALL MAINLINE FITTINGS SHALL BE SCH. 80.
7. ALL WIRING SHALL BE ENCLOSED IN CONDUIT: CONTROL WIRE, 2-WIRE, POWER WIRE.

E1

PIPE/WIRE IN TRENCH

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



- ① 4" MINIMUM CLEARANCE
- ② FINISH GRADE
- ③ 18" MINIMUM, 24" MAXIMUM PIPE COVER
- ④ 2" MINIMUM, PIPE BEDDING
- ⑤ 6" MINIMUM, 18" MAXIMUM

NOTES:

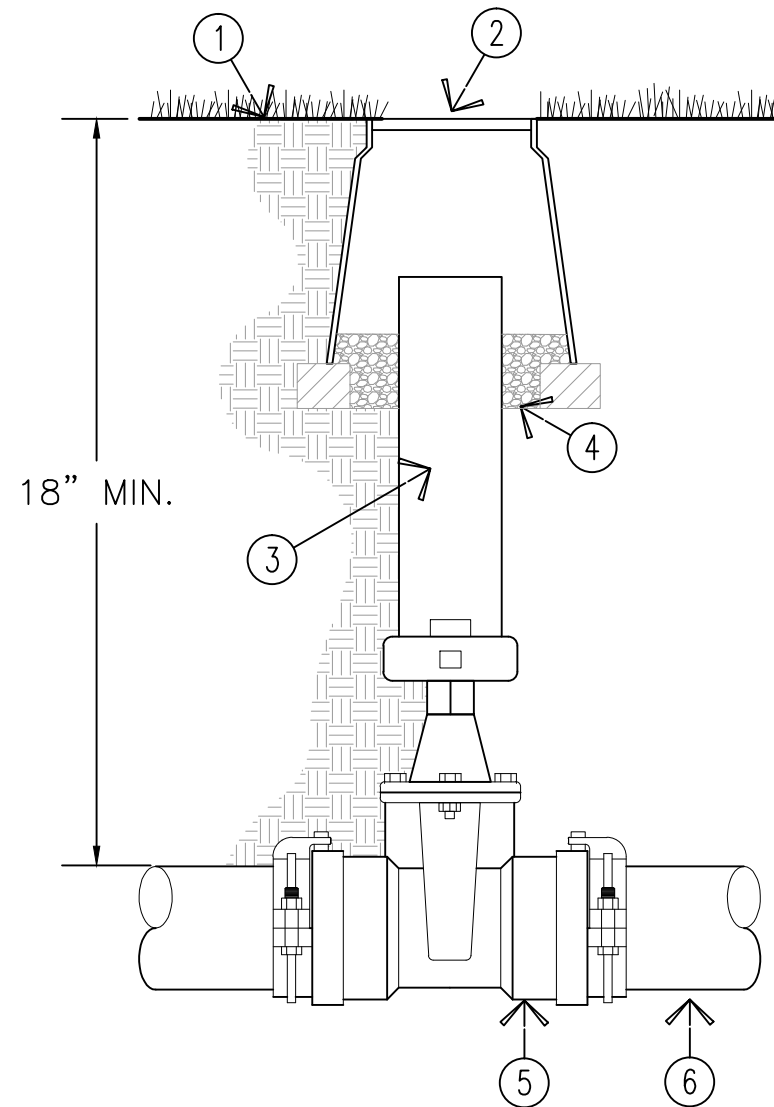
1. SLEEVES TO BE 2X PIPE SIZE WITHIN. JOINTS TO BE WATERTIGHT. MECHANICALLY TAMP TO 95% PROCTOR.
2. ALL PIPE SLEEVING SHALL BE SCH. 40 PVC. PIPING UNDER ROAD TO THE WATER METER BOX MUST BE POLYETHYLENE.
3. CUTTING/BREAKING EXISTING CONCRETE IS NOT PERMITTED UNLESS NO OTHER ALTERNATIVE IS POSSIBLE. PIPING UNDER PAVING SHALL BE INSTALLED BY JACKING, BORING, OR HYDRAULIC DRIVING.
4. DESIGNER/CONTRACTOR SHALL MINIMIZE THE AMOUNT OF SLEEVING REQUIRED UNDER PAVING.
5. ALL WIRE SLEEVING SHALL BE GRAY S/40 ELECTRICAL CONDUIT. NO EXCEPTIONS.

E2

SLEEVING

SCALE: NTS

LANDSCAPE & IRRIGATION DETAIL



- ① FINISH GRADE
- ② 10" CARSON BROOKS
ROUND VALVE BOX
- ③ 6" CL/200 SLEEVE
- ④ 3/4" WASHED GRAVEL
- ⑤ LEEMCO D/I R/W VALVE
- ⑥ MAIN LINE PIPE

NOTES:

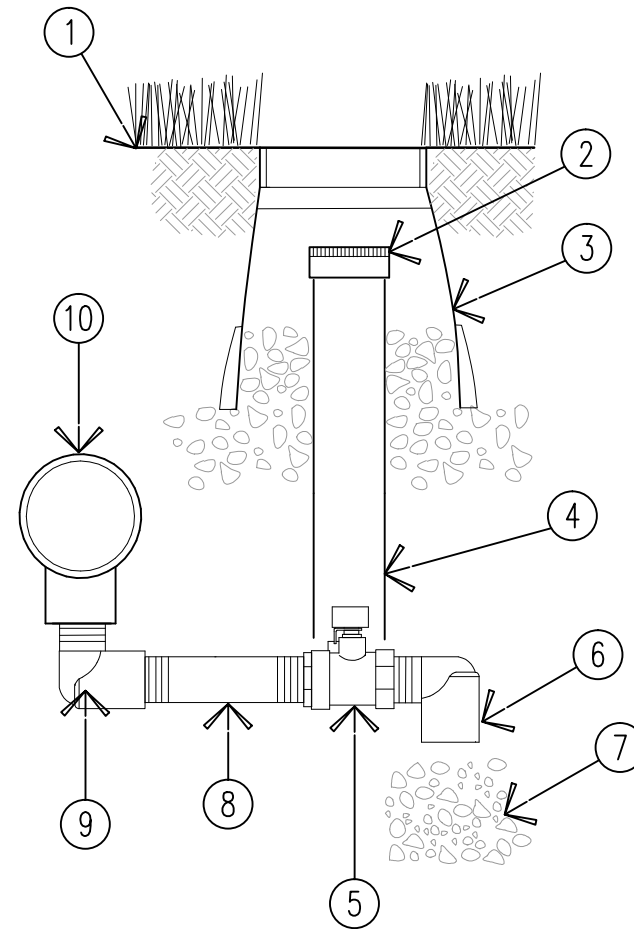
1. ALL GATE VALVES SHALL BE RESILIENT WEDGE WITH SQUARE KEY OR DOMESTIC MANUFACTURE NON RISING STEAM. 2001B WATER, OIL, GAS RATED.
2. ALL GATE VALVES SHALL BE INSTALLED WITH VALVE BOXES. SIX OR TWELVE INCH EXTENSIONS SHALL BE ADDED WHEN NECESSARY TO BRING THE VALVE BOXES LEVEL WITH FINISH GRADE.

F1

LARGE ISOLATION/LINE VALVE

SCALE: NTS

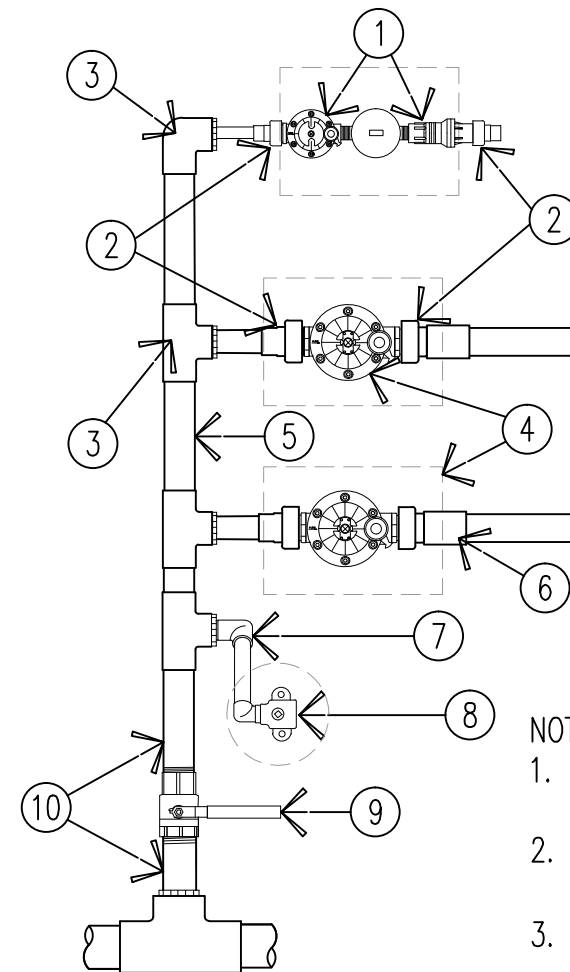
SECTION DETAIL



- ① FINISH GRADE
- ② IRRICAP
- ③ CARSON BROOKS
10" ROUND BOX
- ④ 2" SCH 40 PIPE
- ⑤ 3/4" CURB STOP VALVE
FORD B11-333M
- ⑥ MARLEX STREET ELL
- ⑦ 1 CU/FT 3/4" GRAVEL
- ⑧ 3/4" X 6" S/80 NIPPLE
- ⑨ 3/4" SCH 40 STREET ELL
- ⑩ MAIN LINE PIPE

F2 MANUAL DRAIN VALVE—SMALL

SCALE: NTS SECTION DETAIL



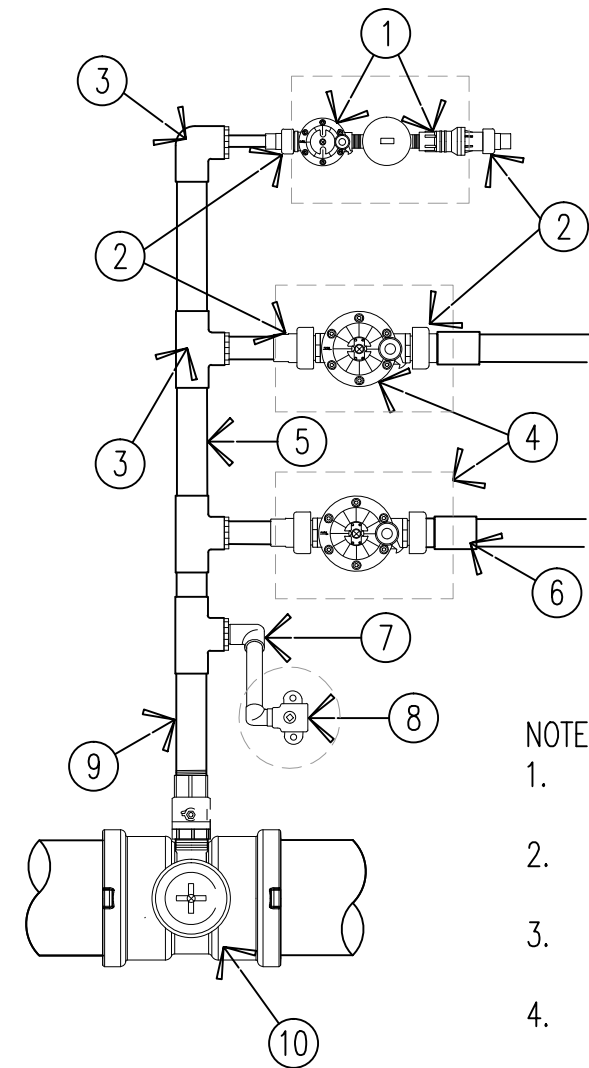
- ① DRIP ZONE KIT, JUMBO BOX
- ② ACTION MANIFOLD FITTINGS
- ③ **SCH. 80 FITTINGS
- ④ RCV IN CARSON STANDARD 1419 VALVE BOX
- ⑤ **SCH. 40 MANIFOLD MAIN LINE
- ⑥ SCH. 40 COUPLER OR BELL END
- ⑦ LASCO UNITIZED SWING JOINT
- ⑧ QUICK COUPLER IN 10" BOX
- ⑨ **BRASS BALL VALVE
- ⑩ **SCH. 80 TOE NIPPLE

NOTES:

1. **INDICATES COMPONENT SHALL BE SAME SIZE AS LARGEST LATERAL ON THIS MANIFOLD.
2. DOWNSTREAM OF BALL VALVE: MANIFOLD FITTINGS SHALL BE S/80, PVC PIPE SHALL BE S/40.
3. QUICK COUPLERS ARE NOT REQUIRED AT EVERY MANIFOLD. SEE PLAN FOR LOCATIONS.
4. ALL CONTROL VALVE MANIFOLDS SHALL INCLUDE BALL VALVE & UNION FITTING ON INLET & OUTLET SIDES OF VALVE.

F4 VALVE MANIFOLD (small main)

SCALE: NTS SECTION DETAIL

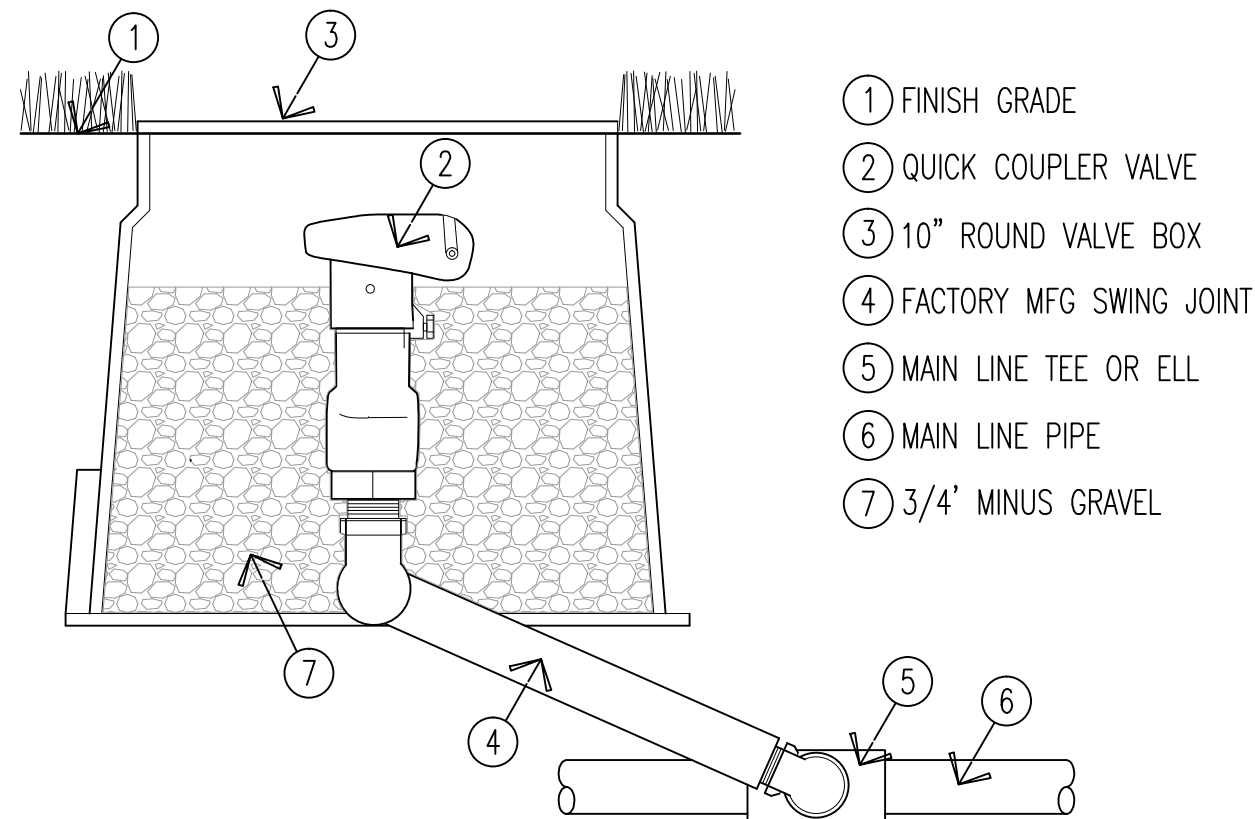


- ① DRIP ZONE, JUMBO VALVE BOX
- ② ACTION MANIFOLD FITTINGS
- ③ **S/80 FITTINGS
- ④ RCV IN CARSON STANDARD 1419 VALVE BOX
- ⑤ **S/40 MANIFOLD MAIN LINE
- ⑥ S/40 COUPLER OR BELL END
- ⑦ UNITIZED SWING JOINT (LASCO)
- ⑧ QUICK COUPLER IN 10" BOX
- ⑨ **S/80 TOE NIPPLE
- ⑩ DUCTILE IRON LATERAL TEE & LATERAL VALVE

NOTES:

1. **INDICATES COMPONENT SHALL BE SAME SIZE AS LARGEST LATERAL ON THIS MANIFOLD.
2. DOWNSTREAM OF BALL VALVE: MANIFOLD FITTINGS SHALL BE SCH. 80, PVC PIPE SHALL BE SCH. 40.
3. QUICK COUPLERS ARE NOT REQUIRED AT EVERY MANIFOLD. SEE PLAN FOR LOCATIONS.
4. ALL CONTROL VALVE MANIFOLDS SHALL INCLUDE BALL VALVE & UNION FITTING ON INLET & OUTLET SIDES OF VALVE.

F5 VALVE MANIFOLD (large main)
 SCALE: NTS
 PLAN VIEW DETAIL



- ① FINISH GRADE
- ② QUICK COUPLER VALVE
- ③ 10" ROUND VALVE BOX
- ④ FACTORY MFG SWING JOINT
- ⑤ MAIN LINE TEE OR ELL
- ⑥ MAIN LINE PIPE
- ⑦ 3/4' MINUS GRAVEL

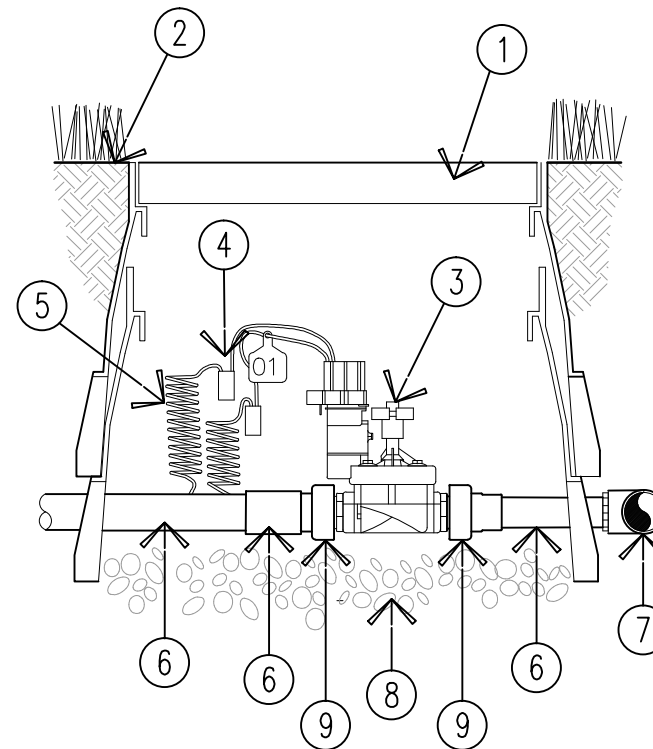
NOTES:

1. A QUICK COUPLING VALVE SHALL BE INSTALLED ON ALL MAIN LINES IMMEDIATELY AFTER THE BACKFLOW PREVENTION DEVICE. IN ADDITION, A QUICK COUPLING VALVE SHALL BE INSTALLED AT VALVE BOX CLUSTERS PER PLANS (SEE VALVE MANIFOLD DETAILS). ALL QUICK COUPLER VALVES SHALL BE INSTALLED IN A 10 INCH ROUND VALVE BOX.
2. ALL QUICK COUPLING VALVE KEYS SHALL HAVE A HOSE SWIVEL ATTACHED TO THE KEY. ONE KEY TO BE TURNED OVER TO THE CITY PARKS DEPARTMENT AT COMPLETION OF THE PROJECT.

F6 QUICK COUPLER VALVE

SCALE: NTS

SECTION DETAIL



- ① STANDARD VALVE BOX
- ② FINISH GRADE
- ③ REMOTE CONTROL VALVE
- ④ PAIGE WIRE CONNECTORS (2)
- ⑤ 14 AWG PE WIRE
- ⑥ SCH 40 PIPE & FITTINGS
- ⑦ SCH 80 FITTINGS
- ⑧ 3/4" MINUS WASHED GRAVEL
- ⑨ ACTION MANIFOLD FITTINGS
(2 EACH) 18011-X,
18012-X

NOTES:

1. VALVES SHALL BE AS SPECIFIED ON DRAWINGS & APPROVED BY THE PARKS DEPARTMENT.
2. VALVES SHALL BE INSTALLED IN A 17 INCH X 11.75 INCH VALVE BOX (NOTE: THIS IS THE MINIMUM SIZE).
3. NO MORE THAN TWO VALVES PER BOX & VALVES MUST BE POSITIONED SUCH THAT THE TOPS OF THE VALVE CAN BE REMOVED WITHOUT REMOVING THE VALVE BOX.

F7

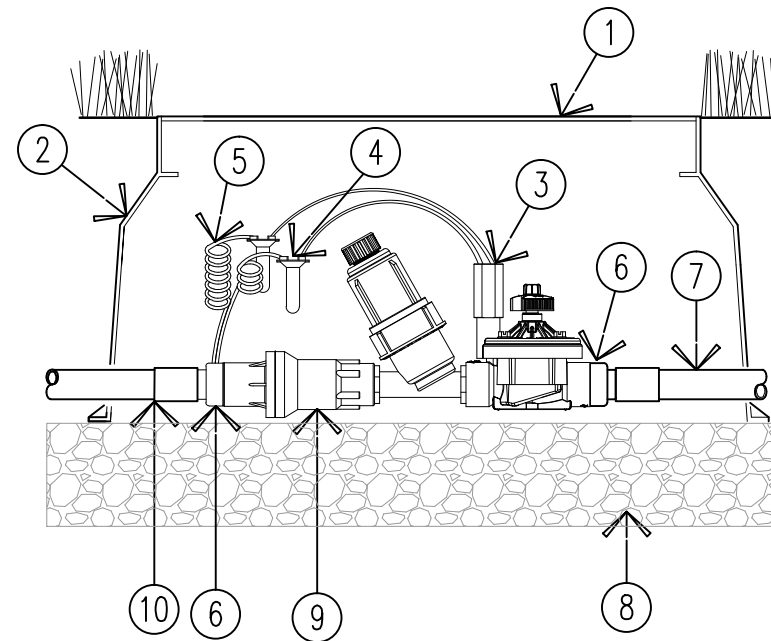
REMOTE CONTROL VALVE

SCALE: NTS

SECTION DETAIL

NOTES:

1. ALL "DRIP" SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH A LOW FLOW VALVE & PRESSURE REDUCING FILTER AS APPROVED BY THE LEHI CITY PARKS DEPARTMENT.



- ① JUMBO VALVE BOX
- ② WRAP BOX IN DEWITT PRO 5, W/4 BRICKS UNDERNEATH
- ③ DRIP ZONE KIT
MODEL PER PLAN
TIP FILTER 45 DEGREES
- ④ PAIGE WIRE CONNECTORS (2)
14 AWG PE WIRE. PLACED
INSIDE OF MIN 1-1/2"
CONDUIT, 4" ABOVE BOX
FLOOR
- ⑤ ACTION MANIFOLD FITTINGS
- ⑥ MAIN LINE PIPE,
SCH 80 FITTINGS
- ⑦ 3/4" MINUS WASHED GRAVEL
- ⑧ REGULATOR: 25 or 40 PSI
- ⑨ LATERAL LINE PIPE,
SCH 40 FITTINGS

F8 DRIP CONTROL ZONE

SCALE: NTS SECTION DETAIL

DISTANCE CHART

REFER TO THE FOLLOWING TABLE THAT LISTS THE LENGTH (IN FEET) FOR EACH SIZE/TYPE FITTING WITHIN WHICH ALL JOINTS JUST BE RESTRAINED. ALL FITTINGS & JOINT RESTRAINTS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS & SPECIFICATIONS.

AS AN EXAMPLE, IF YOU ARE INSTALLING A 3" MAINLINE WITH A DIRECTIONAL CHANGE OF 90°, REFER TO CHART UNDER PIPE SIZE TO 3" & UNDER BENDS 90 YOU WILL SEE THE DISTANCE OF 11'. IF THERE IS ANY JOINT (VALVE, BELL, ETC.) YOU MUST INSTALL A JOINT RESTRAINT WITHIN 11' OF THE 90° MAINLINE DIRECTIONAL CHANGE.

PIPE SIZE	BENDS				REDUCERS			DEAD END	
	11°	22°	45°	90°	1 STEP	2 STEP	3 STEP	BLIND	SERV. B.
2"	1'	1'	2'	6'	-	-	-	19'	6'
2.5"	1'	2'	4'	9'	4'	-	-	23'	10'
3"	2'	3'	6'	11'	8'	10'	-	30'	15'
4"	2'	4'	9'	20'	14'	20'	31'	45'	25'
6"	3'	6'	13'	29'	30'	40'	53'	63'	40'
8"	4'	8'	15'	38'	33'	55'	63'	75'	70'
10"	5'	9'	19'	45'	36'	56'	75'	96'	90'
12"	5'	10'	21'	53'	38'	60'	83'	112'	110'

THESE CHARTS ARE BASED ON USE OF LEEMCO PRODUCTS & PROVIDED AS REFERENCE ONLY. CONTRACTOR SHALL CONTACT CORRESPONDING MANUFACTURER REPRESENTATIVE FOR PROPER CHARTS, TRAINING & CERTIFICATION IF OTHER PRODUCTS ARE SUBMITTED & APPROVED. FOR USE OF LEEMCO PRODUCTS, CONTACT THE LEEMCO REPRESENTATIVE, FOR ALL QUESTIONS CONCERNING LEEMCO PRODUCTS.

INSTALLATION CHART

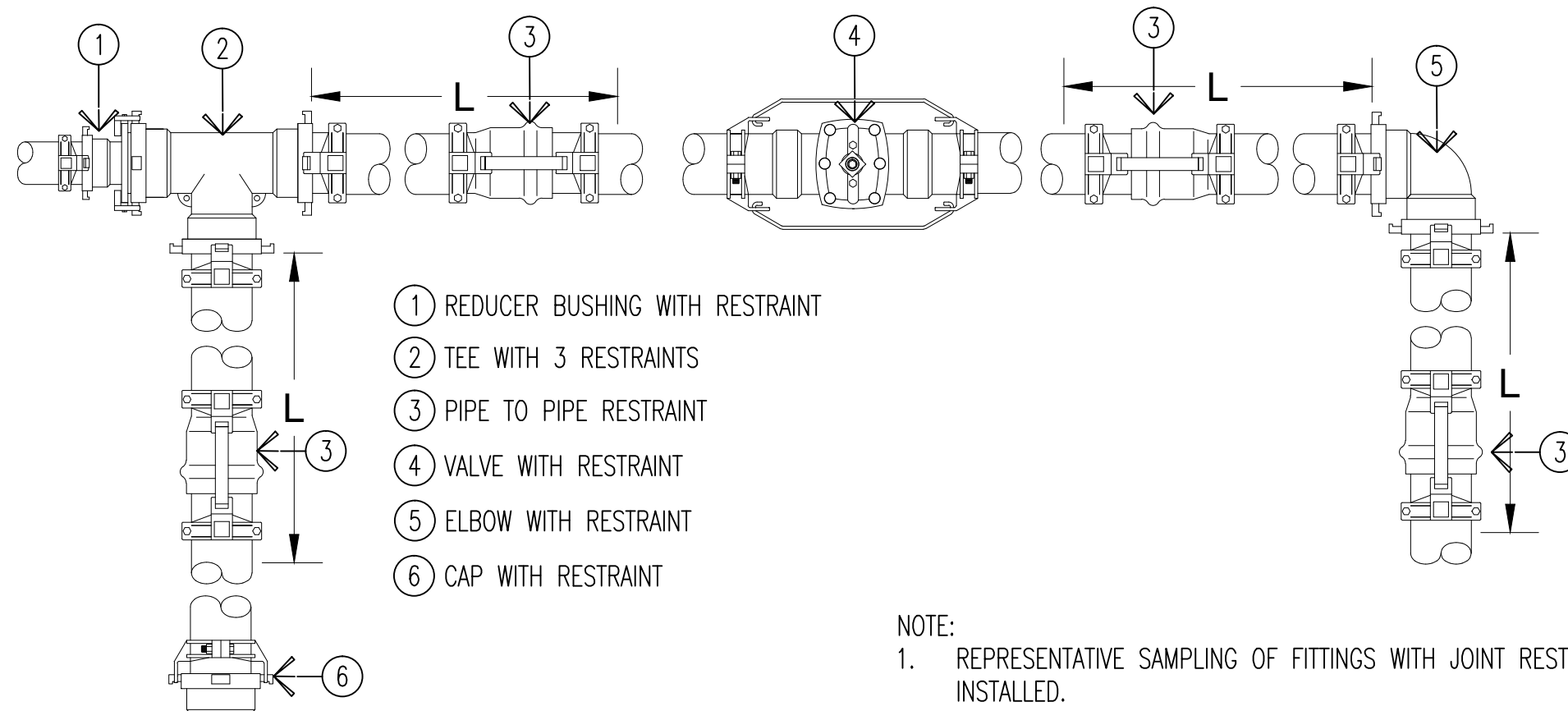
REFER TO THE FOLLOWING TABLE WHICH LISTS THE NUMBER OF BOLTS, SIZE & TORQUE FOR EACH BOLT IN REFERENCE TO THE SIZE OF PIPE WHICH IS BEING RESTRAINED.

AS AN EXAMPLE, IF YOU HAVE A 3" PIPE, YOU WILL NEED 2 BOLTS THAT ARE 3/8 X 2.5" & TIGHTEN THEM WITH A TORQUE WRENCH TO 20 FT-LBS.

PIPE SIZE	NO. BOLTS	BOLT SIZE	TORQUE FT-LBS.
2"	2	3/8" x 2.5"	20
2.5"	2	3/8" x 2.5"	20
3"	2	3/8" x 2.5"	20
4"	2	1/2" x 3"	50
6"	2	1/2" x 3.5"	50
8"	4	1/2" x 4"	50
10"	4	5/8" x 5.5"	100
12"	4	5/8" x 5.5"	100

G1

JOINT RESTRAINT TABLES

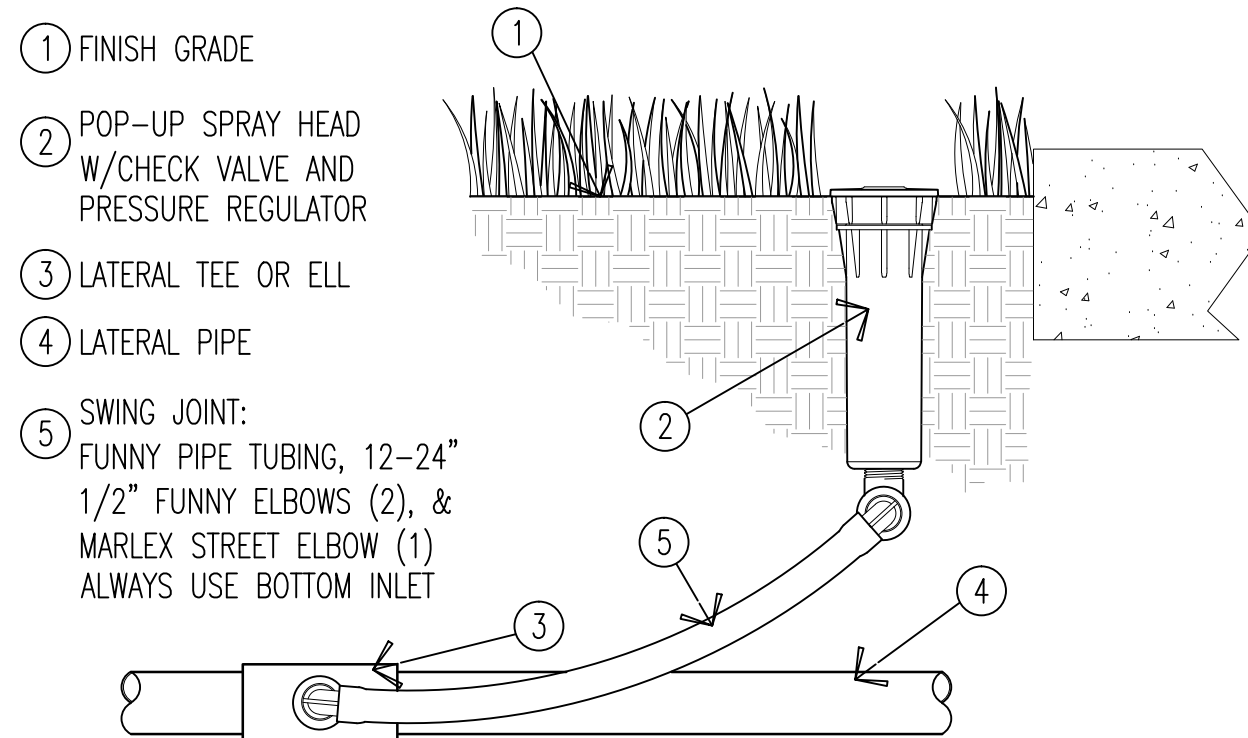


- NOTE:
1. REPRESENTATIVE SAMPLING OF FITTINGS WITH JOINT RESTRAINTS INSTALLED.
 2. PIPE TO PIPE RESTRAINTS ARE SHOWN BUT ARE NOT NECESSARILY ALWAYS REQUIRED. REFER TO JOINT RESTRAINT TABLES.

G2 TYPICAL JOINT RESTRAINT LAYOUT (2-1/2" & LARGER)

SCALE: NTS

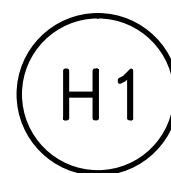
PLAN VIEW DETAIL



- ① FINISH GRADE
- ② POP-UP SPRAY HEAD
W/CHECK VALVE AND
PRESSURE REGULATOR
- ③ LATERAL TEE OR ELL
- ④ LATERAL PIPE
- ⑤ SWING JOINT:
FUNNY PIPE TUBING, 12-24"
1/2" FUNNY ELBOWS (2), &
MARLEX STREET ELBOW (1)
ALWAYS USE BOTTOM INLET

NOTES:

1. ALL SPRINKLER HEADS SHALL BE SET TO GRADE & PERPENDICULAR TO THE FINISHED GRADES UNLESS OTHERWISE SPECIFIED. HEADS ADJACENT TO CURBS & WALKS SHALL BE 1/2 INCH TO 1 INCH AWAY FROM THE CURB OR WALKWAY. ALL NOZZLES SHALL BE TIGHTENED & ADJUSTED FOR THE PROPER RADIUS, ARC, & GALLONAGE.
2. SPRAY POP-UP SPRINKLER HEADS SHALL HAVE A DOUBLE SWING JOINT RISER CONSTRUCTED OF FUNNY PIPE, BARBED FITTINGS & MARLEX STREET ELLS ON THE HEAD SIDE.

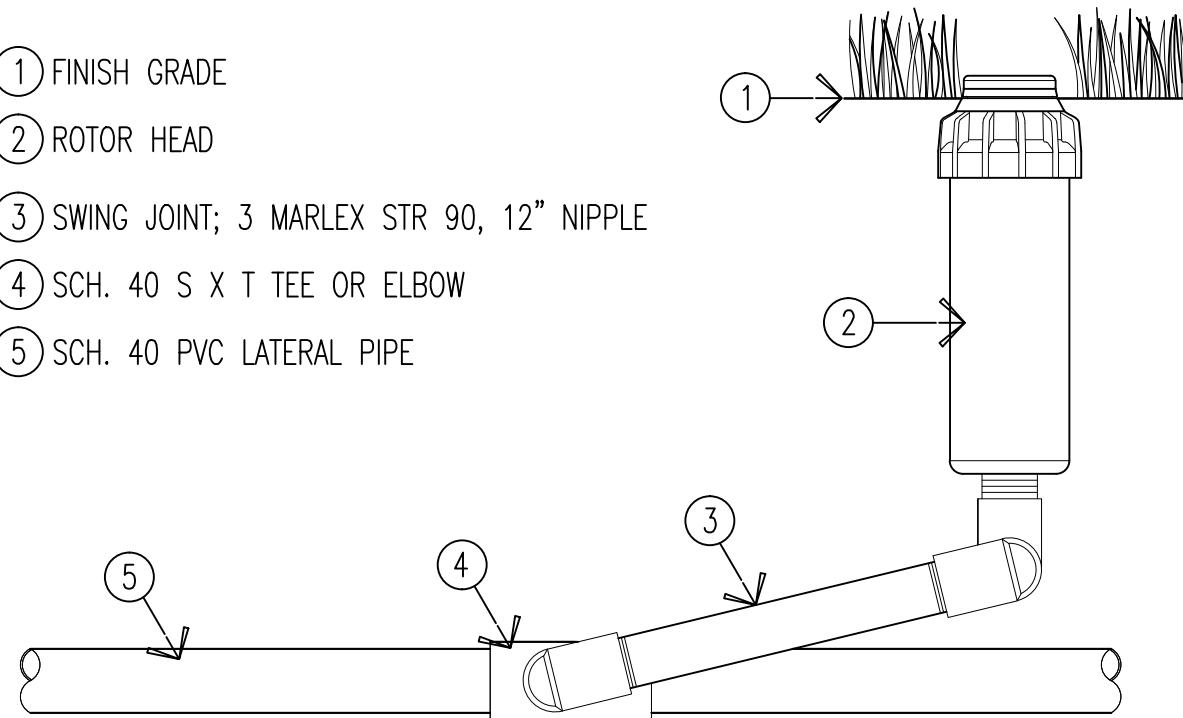


SPRAY HEAD

SCALE: NTS

SECTION DETAIL

- ① FINISH GRADE
- ② ROTOR HEAD
- ③ SWING JOINT; 3 MARLEX STR 90, 12" NIPPLE
- ④ SCH. 40 S X T TEE OR ELBOW
- ⑤ SCH. 40 PVC LATERAL PIPE



NOTES:

1. ALL SPRINKLER HEADS SHALL BE SET TO GRADE & PERPENDICULAR TO THE FINISHED GRADES UNLESS OTHERWISE SPECIFIED. HEADS ADJACENT TO CURBS & WALKS SHALL BE 1/2 INCH TO 1 INCH AWAY FROM THE CURB OR WALKWAY. ALL NOZZLES SHALL BE TIGHTENED & ADJUSTED FOR THE PROPER RADIUS, ARC, & GALLONAGE. IMPACT HEADS SHALL NOT BE APPROVED WITHIN LEHI CITY.
2. ALL ROTOR POP-UP SPRINKLERS SHALL HAVE AN ADJUSTABLE RISER ASSEMBLY (DOUBLE SWING JOINT).

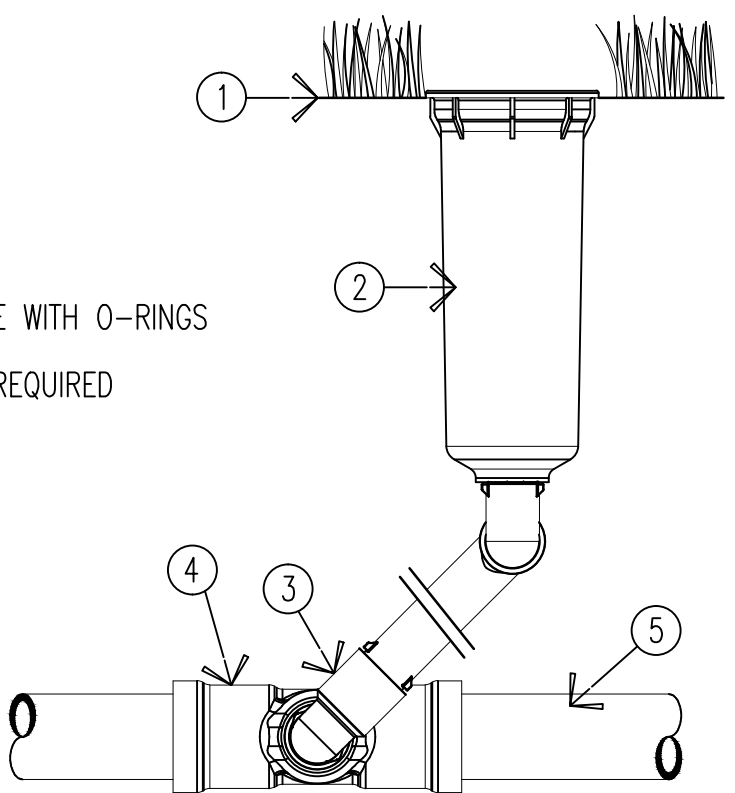
H2

POP UP ROTOR HEAD

SCALE: 3" = 1'-0"

SECTION DETAIL

- ① FINISH GRADE
- ② SPORTS TURF HEAD
- ③ SWING JOINT: UNITIZED, ACME WITH O-RINGS
- ④ FITTING, TEE OR ELBOW AS REQUIRED
- ⑤ SCH. 40 PVC LATERAL PIPE



NOTES:

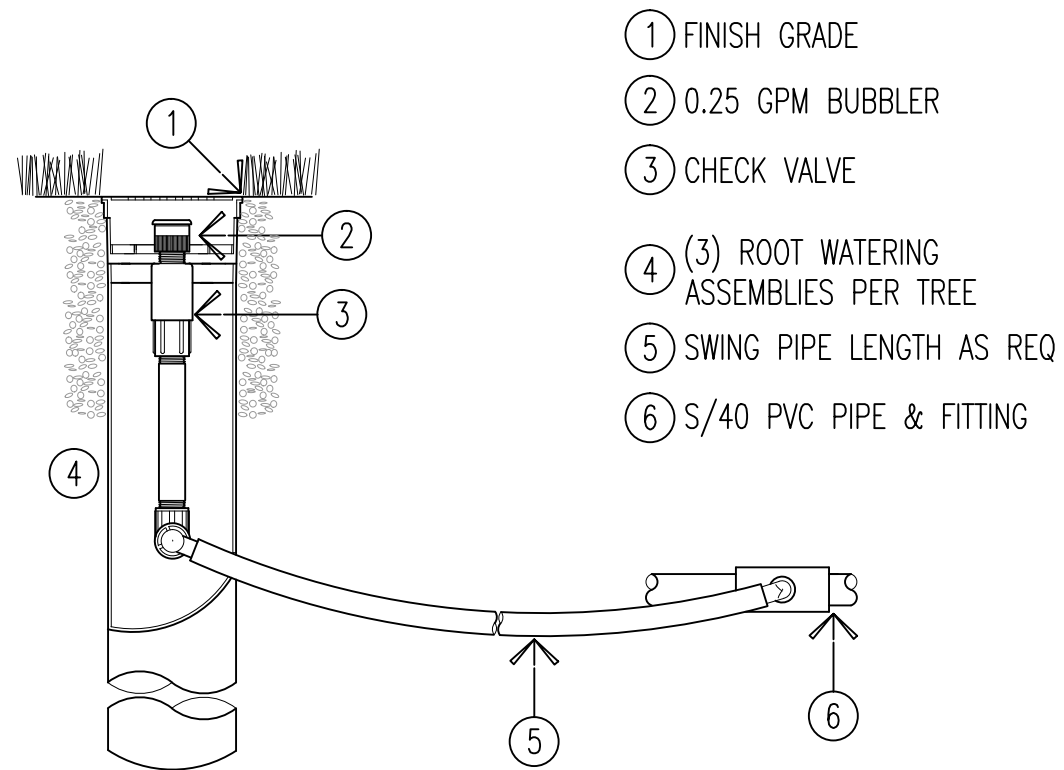
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- 2. ALL ROTOR POP-UP SPRINKLERS SHALL HAVE AN ADJUSTABLE RISER ASSEMBLY (DOUBLE SWING JOINT).

H3

SPORTS TURF ROTOR

SCALE: 3" = 1'-0"

SECTION DETAIL

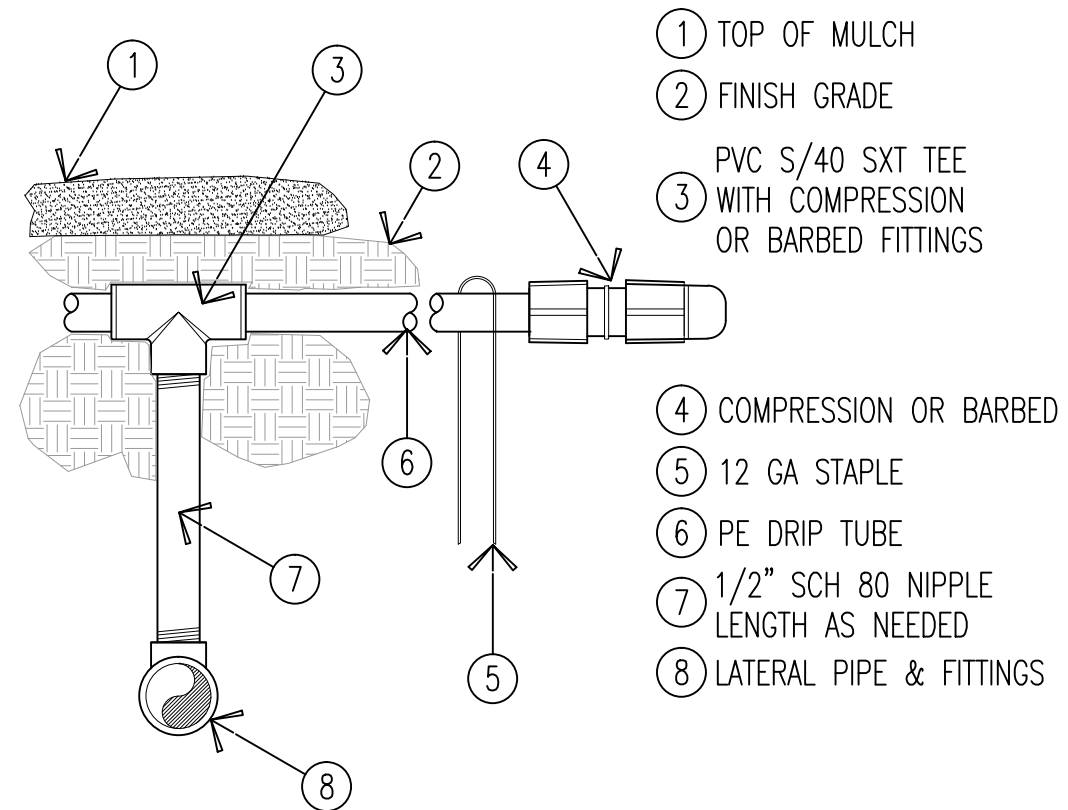


I1

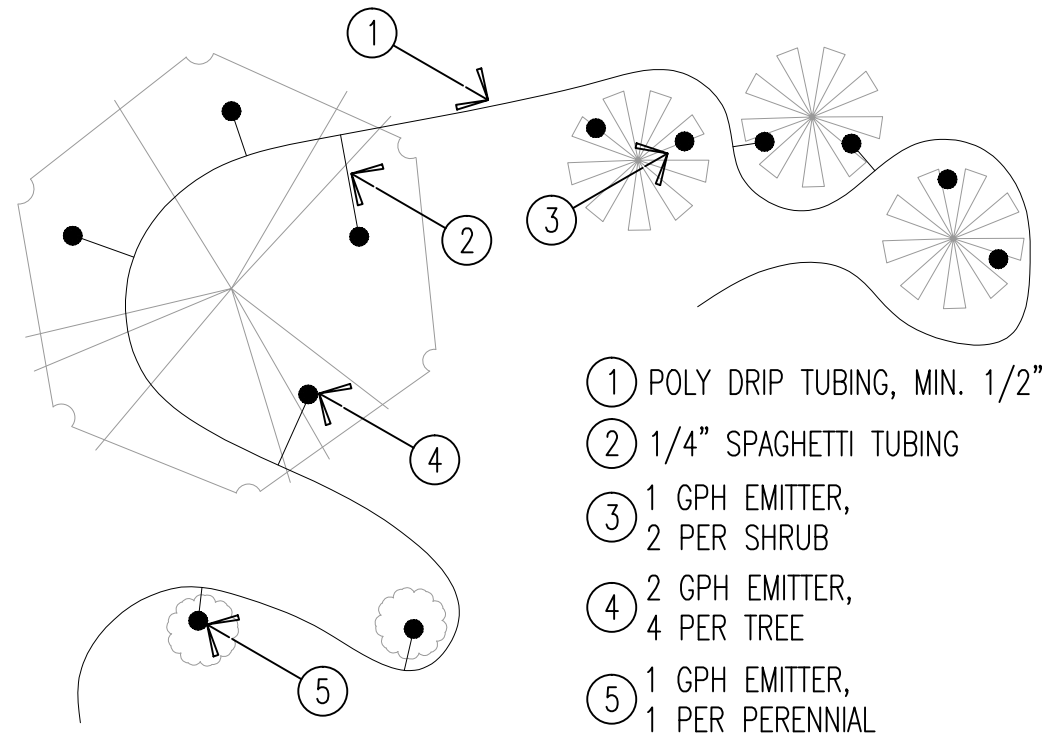
ROOT WATERING ASSEMBLY

SCALE: NTS

SECTION DETAIL



12 **PVC TO POLY CONNECTION**
 SCALE: NTS SECTION DETAIL



LOCATE EMITTER ON UPHILL SIDE OF PLANT ON SLOPES. BERM SOIL FOR WATER BASIN ON EACH PLANT.

13

DRIP TUBING WITH EMITTERS

SCALE: NTS

PLAN DETAIL